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THE STATE OF NEW-YORK:

ITS EXTENT AND AGRICULTURAL PRODUCE, WITH OTHER STATISTICS, AND
EDITORIAL REFLECTIONS SUGGESTED BY A VIEW OF THEM.

HERE, again, it may be alleged that there is nothing "practical"—by which is usually meant, nothing *exactly and directly money-making*—in the knowledge to be derived from a view of such facts as these; yet what intelligent reader, imbued with a spark of that State pride which is the beginning of patriotism, does not wish that provision could be made for ascertaining, in like manner, the resources and productive power of the State to which he belongs? What young lad should leave school, indeed, without having even *there* become familiar with such facts, as far as the means exist for learning them? How much more "practical," even, would it be to be made thus acquainted with the sources of wealth existing in every part of his own country; and how much in each State is the aggregate amount, and average acreable produce of all its great staples, than to be learning, parrot-like, by rote, the speeches of savage or civilized warriors before or since the Flood, as they are taught in our country schools? How—yet more emphatically may we demand—can enlightened legislation be enacted for any State, without such knowledge of her natural and artificial capabilities, and the progress making for their development? Alas! in the scuffles of party for power, and the watchfulness of demagogues who stand ready to use it, when acquired, for selfish and party ends, the great, substantial interests of the community, and all the great and legitimate purposes of enlightened government, are too often lost sight of.

In Hunt's invaluable Magazine, where the facts contained in the Census of the Federal and State Governments have been clearly tabularized, it is well said in some preliminary remarks that "the earth is the fruitful mother of the other great industrial interests of the State; and the products of Agriculture furnish the manufactures with the raw material out of which the skill and industry of the artisan produce the 'goods, wares and merchandise' that supply Commerce with its commodities of traffic and transport."

From the United States in 1846, the agricultural exports amounted in value to \$78,673,515, while that of all besides, united—of the sea, the forests, wood in all shapes, as staves, masts and spars; naval stores, pot and pearl ashes, and manufactures of every kind—in short, the produce of every other branch of industry—amounted only to \$22,468,378, being about \$4 of national wealth produced by the plow, to \$1 from *all* other employments. Yet who ever heard of

any special legislation for the benefit of the farmer? Even *madder* for the manufacturer, which might so easily be produced in many of our States under a small duty, is let in a manner to benefit the landlords of the half starved laborers of Europe who work for nothing, and are then, generally, not half as well fed, clothed or housed as the slaves of the United States. We have munificent and well bestowed national expenditures for instruction in the use of *fire-arms*, but who ever hears of our Government providing for instruction in the use of the arms and implements of husbandry? Now let us suppose that in New-York, at Hyde-park or elsewhere, removed from the interruptions, the temptations and seductions of a large city, New-York had possessed for an equal time a school with its buildings, Professors, apparatus, and repositories, and libraries, to rear up and send forth instructors over the country, in all the principles of Agriculture; may we not suppose that it would have added as much to the agricultural capabilities of the country as the West Point Academy has added to the efficiency of our Army, in the practice of war? Alas! the day is yet too distant when her farmers will have the discernment to perceive, combined with the spirit to demand, the former as being at least as necessary and useful as the latter. But let us proceed, and we shall see the interest at stake and the ground that landholders have to insist that Agriculture shall occupy the foremost instead of the rear rank among objects of Government care.

The area of New-York is 29,220,936 acres; population 2,604,495, springing, with additions by immigration, from only 100,000 in 1749. Of this amazing increase, 1,000,000 has accrued in the last 25 years; and much of the impetus under which this increase has taken place flows from the *internal works* that connect her great Atlantic emporium, with the lakes and canals of the growing West. How much will that impetus be augmented when the *Erie Railroad* shall have been completed? There are some striking facts that here present themselves for the contemplation of legislators, or rather of statesmen—for unfortunately these are by no means convertible terms. When the first regular Census was taken in 1790, the population of Virginia was 748,308; that of New-York only 340,120. In a race of twenty years, which is but a “brush” in the race of States, New-York had already lapped her, having in 1810 gone up to 959,049, while Virginia stood at 974,622. In the next twenty, after she began to wax fat and grow strong in the enjoyment of her internal improvement policy, without any aid from Hercules, (though she called on him,) she beat the Old Dominion by more than a million! Virginia standing, in 1840, at 1,239,797; New-York 2,428,921—since which she has added nearly 200,000 more, besides doing much toward colonizing Michigan and other Western States. To how many States might be applied the remarks of Hon. J. R. Poinsett, of South Carolina, where, contrasting the condition of Flanders and Sicily, from personal observation, he says: “In Flanders the whole country bears the impression of the vivifying industry and zealous enterprise of the people. It is traversed in every direction, by lines of easy communication, furnished with manufactures in every town and every hamlet, to work up the product of its agricultural industry, providing the farmer with an abundant home market, while affording employment to a large portion of the population; wasting nothing, but working up and extracting valuable materials, which are considered in some countries as worthless refuse. Whereas, Sicily, with its fine climate and fruitful soil, bears the impress of slothfulness and neglect. No roads, no canals, none but the coarsest manufactures, the land carelessly tilled, and yielding a scanty subsist-

ence to the laborer."—But what, says the impatient "practical man," has this to do with Agriculture? Why, *only* that it shows how Agriculture thrives and subsistence is augmented, and with it population, when roads and canals provide easy transportation to market, and save for direct production the labor that had been employed in exchanging. The saying is imputed, we believe, to the late Nathaniel Macon, that he would not like to live in a State where the population was so dense that any farmer could "hear his neighbor's dog bark;" and we can believe it, as he once told us himself that he would not live where there was a *law against dogs!* "Each of my negroes keeps one, and I keep thirteen," said he. But where would this country have been if all had been, like him, advocates of the stand-still policy? Hence has it, in part, happened with his State, North Carolina, that with an area of 26,832,960 acres, within a fraction of New-York, she has only one-third the population; and (speaking of dog laws) she has 538,279 *sheep* against 5,118,777 in New-York—so stood the account in 1840. New-York had, two years since, increased her flocks to 5,443,855. How much has North Carolina increased hers in the same time, with every negro his dog, and every master his thirteen? New-York clipped, in 1845, of wool, 13,864,828 lbs., which at 33 cents a pound was worth \$4,621,602!! Let us here ask, as not inapposite to the subject in hand, how many farmers in North Carolina have read the very able and conclusive letters by H. S. Randall, now appearing in *The Farmers' Library*, *demonstrative* of the resources and capacity of the Southern States for successful Sheep Husbandry? We pray you, reader, is there not something of a "practical" aspect in this view of the question? But again, as to the practical advantages of a populous over a sparsely settled State, if each enjoyed an isolated, independent existence, not united under one government, with power according to population, we are not sure that we, too, would not prefer for personal comfort a thin settlement, where one could barely hear the shrill note of his next neighbor's old gander in a clear, frosty night, or just see the smoke from his chimney rising over intervening woods and hills at daylight in the morning. But be it remembered that ours is a *law-manufacturing* country, and more than half the year is spent in making new laws and tinkering those that are not yet old; and when the conflict of local interests and local policy, likely, unfortunately, to be more and more inveterate—when that comes on in the halls of legislation, *does not population tell?* Besides, the *law* of Nature is that with prosperous and increasing population, all industries thrive, all arts improve, and the sources of comfort and happiness multiply.

But we are rambling into views of the subject of political power and resources, which we did not here propose to touch; nevertheless, we have it in contemplation to give, as far as materials offer, similar sketches of the agricultural condition of all the States, as they will present facts connected with the husbandry and politico-agricultural power of each, with which every young man ought to be familiar; and we shall persist in writing for *them*, whether their fathers choose, or not, to let them see what we offer. In fact, we mean (thanks to the liberality of our Publishers, and our abundance of materials!) to present such matter for the benefit and instruction of the rising school of American husbandmen, as must force its own way, whether channels are opened for it or not.—Those who don't take *THE FARMERS' LIBRARY* now, will have to go back for it by-and-by, when the amount will tell, besides losing the benefit in the mean time for themselves and their sons. But preliminary to an exhibition of the agricultural resources and products of the State of New-York, it occurs to us to make one other remark, for the benefit of those of the stand-still school, who

would contend that there is no room to hope for material advancement in Agriculture. Let us look at these *averages*, and compare that of even the highest in any county in the State—Monroe, 19½ bushels of wheat—with what it has been *proved can be made*; and so of other crops. The average of the whole State, it will be seen, is *under* 14 of wheat, 26 of oats, and 25 of Indian corn.—Now it has been seen, in the last number of THE FARMERS' LIBRARY, in a letter to the Editor from the efficient Secretary of the State Society, that Charles W. Eels, of Oneida County, "without any extraordinary application of manure," made 123½ bushels of *corn* to the acre; that Daniel Short, of Ontario, made 60 bushels of *wheat* to the acre, by weight; and that W. C. Burrett made of *oats* 102 bushels to the acre, by weight. In England, the average produce of wheat is 25 to the acre, instead of 17 in 1821, and less than 10 a century ago. And how, reader, do you suppose it has been accomplished? According to the most distinguished men in the kingdom—tenant farmers as well as landlords—it has been brought about by a more thorough *knowledge of the principles* on which success in Agriculture, as in every other art in the world, depends! But do you expect Congress to do anything for diffusing light upon the poor, humble business which is made to prosper by a better knowledge of the *component parts of the soil, and of manures, and of plants—of geology, of physiology and entomology, or any other art except gun and pistol and sword-ology?* Not they! Our beneficent Government, established by "we the people" for the people's good, has no power of action for the benefit of the *bread-making art, or the art of making sugar, or rice, or cotton.* True, the Government has exercised the power to analyze *cotton*—not in its agricultural or any other relations, but to see whether it might not take the place of that "villainous compound," *gunpowder*! True, they do exercise the power of establishing a bureau or university for the dissemination of agricultural knowledge—but only in a sneaking, left-handed way. In certain pigeon-holes of a subordinate Bureau of the State Department, labeled Hogs—Sheep—Dairy—Potato Rot—Bees—Indigo—Broccoli—Bene Plant—Hemp—Hay—Onions, &c. &c., scraps are collected, and letters filed, which once a year are made up into books, to be given away by Members of Congress to favored constituents; and this it is which takes the place of Washington's "Agricultural Department," and passes at home, and unfortunately abroad, for *our* national patronage of the great art and business of American Agriculture—our national exposition of the condition and resources of the landed interest of this great and growing country—such a Report as Lyford, of Baltimore, would cut out and more lucidly make up in a month, from the exchange papers of any daily paper. Why not, as they do swallow the principle, take hold of the subject at once, in a manner worthy of its dignity, and its transcendent importance—paramount as it is, and as it deserves to stand before all others? Why not, while they are expending the public money for disseminating knowledge, (for if it be not for that, for what is it?) at once establish an institution like that at West Point, for *rearing up instructors*, who shall go forth, throughout the State, to spread far and wide a knowledge of chemistry, geology, botany, physiology, and mechanical philosophy, as *connected with that art which forms the business of four-fifths of the people, and which feeds all classes?*

1. Statistics of Wheat, Rye and Oats.

Acres of improved land in the State.....	11,737,276	No. of acres of <i>oats</i> sown	1,026,915
No. of acres of <i>wheat</i> sown	1,013,665	No. of bushels of oats harvested	26,323,051
No. of acres of wheat harvested.....	998,233	Average No. of bushels per acre	26
Quantity of wheat raised....bushels	13,391,770	No. of acres of <i>rye</i> sown	317,099
Average No. of bushels per acre.....	14	No. of bushels of rye harvested.....	2,966,322
(532)	Average No. of bushels of rye per acre.....		9½

2. *Corn, Potatoes, Peas and Beans.*

No. of acres of <i>corn</i> sown.....	595,134	No. of acres of <i>peas</i> under cultivation	117,379
No. of bushels of corn harvested.....	14,722,114	No. of bushels of peas raised.....	1,761,503
Average No. of bushels per acre.....	25	Average No. of bushels per acre.....	15
No. of acres of <i>potatoes</i>	255,762	No. of acres of <i>beans</i>	16,231
Quantity of potatoes raised.....	23,653,418	Quantity of beans raised.....	162,187
Average No. of bushels per acre.....	90	Average No. of bushels per acre.....	10

3. *Barley, Buckwheat, Turnips and Flax.*

No. of acres of <i>barley</i> cultivated.....	192,504	No. of acres of <i>turnips</i> cultivated.....	15,322
Quantity barley raised preceding yr.	3,108,705	Quantity of turnips raised.....	1,350,332
Average No. of bushels per acre.....	16	Average No. of bushels per acre.....	88
No. of acres of <i>buckwheat</i>	255,495	No. of acres of <i>flax</i> cultivated.....	46,089
Quantity of buckwheat raised.....	3,634,679	No. of pounds of flax raised.....	2,897,062
Average No. of bushels per acre.....	14	Average No. of pounds per acre.....	100

4. *Neat Cattle, Horses and Hogs—Butter and Cheese.*

No. of <i>neat cattle</i>	2,072,330	Pounds <i>butter</i> made during the year.....	79,501,733
No. of neat cattle under 1 year old..	334,456	Pounds <i>cheese</i> made during the year.....	36,744,976
No. of neat cattle over 1 year old....	1,709,479	No. of <i>horses</i>	505,155
No. of cows milked.....	999,490	No. of <i>hogs</i>	1,584,344

5. *Sheep, Wool, Fleeces—Agricultural Statistics.*

No. of <i>sheep</i>	6,443,855	Average No. of pounds per fleece....	3
No. of sheep under 1 year old.....	1,870,728	No. of farmers and agriculturists....	253,292
No. of sheep over 1 year old.....	4,505,369	Legal voters.....	539,379
No. of <i>fleeces</i>	4,607,012	Total population.....	2,604,495
No. of pounds of wool.....	13,864,828	Proportion of farmers and agriculturists	1 to 10

HOGS—BACON.

REMARKS ON VARIOUS BREEDS OF HOGS, AND HOW TO INSURE THE BEST BACON.

HOMELY subjects these, saith the reader; yet not to be despised in this utilitarian age of ours. Nay, the time was when even *brawn*, which, according to old Sam, means *boar's-flesh*, was reckoned a great delicacy; nor was he altered or slaughtered until all his faculties were fully developed, and age had imparted to his flesh that firm consistency and high flavor which seem to have suited the palate of our Saxon ancestors. An ancient writer of renown says: "The proper age of the boar is from two to five years old, at which time it is best to geld him or sell him for *brawn*;" and Johnson defines a brawner to be "a *boar* killed for the table."

"At Christmas time, be careful of your fame;
See the old tenant's table be the same;
Then, if you would, send up the brawner head—
Sweet rosemary and bays around it spread."

We are, in fact, told that the boar's head soused, in the days of the peg and was-sail (corrupted into pig and whistle), was the first dish on Christmas day, and was carried up to the principal table in the hall with great state and solemnity. In 1170, (says Hollingshed,) Henry I., on the day of the young Prince's coronation, served his son at the table, as sewer, or head waiting-man—bringing up the boar's head, with trumpets before it, according to the fashion of that day. But what changes do our tastes and habits undergo with the progress of wealth and luxury! What, we wonder, would have prevailed with the worthy and lamented "*Ben Ford*," of Baltimore, to place a five-year old boar's head at the head of one of his dinner tables? Why, his very bones would turn in his grave at the bare thought of it. *Alas, poor Ben!* shall your name be written in such connection, without one line of grateful tribute to you and to your old contemporary, *Chamillon*, the French cook, from the pen of one for whom you so often and so

well cooked and served up the good things of this life, though he be now among the poorest of your friends? As great *artistes* in your lines respectively, who denies your genius?

"The cook and sewer each his talent tries;
In various figures scenes of dishes rise."

If, indeed, honor arise from well acting our parts, who better performed his part, or who was better pleased to serve the "quality," than Ben? How many of the "old set" will agree with us that we could better have spared many a whiter man? For one, we hope never to be ashamed to do justice to honesty and excellence, displayed by whatever color, in whatever sphere of life.

As, however, returning to our subject, we have no ambition to taste head or tail of a five-year old brawner, we come down to later times, and, as the reader will agree, to better eating.

We have now been residing in New-York, *nolens volens*, since the day, memorable in the annals of the turf, when *Peytona* beat *Fashion*, the latter being out of condition, in two straight heats of four miles; and we can safely say that, in all that time, we have never seen a real red, juicy, right-sized, well-shaped, high-flavored, properly smoked, corn-fed *ham*—neither too salt nor too fresh, but just the right thing!—one of which it might be truly said, "the nearer the bone, the sweeter the meat"—such as one meets with, almost universally, on the tables of the respectable middling farmers in Maryland, Virginia, North Carolina, Kentucky, and, we suppose, Tennessee—and especially, if we must say it, according to our personal experience, those of Montgomery County, Maryland, where hams possess an indefinable richness, if we may so say—a *leetle* better than is generally to be met with even in the States named, where bad bacon is as rarely to be found as a really high-flavored, choice ham north of the Hudson.

Reared in the country, and in the very region of persimons, acorns, beech-nuts, and hickory-nuts, and chestnuts, and Indian corn—where hogs run and root, enjoying, by universal suffrage, the "largest liberty," until they are "put up" in October to be fattened—we may, without presumption, undertake to tell the *how* of good bacon, and the *why* it is that he who would have it of a quality that prompts you to scrape the bone for the last particle to be got of an old ham, may never expect to meet with it, except by purchase, either from Westphalia, or from the region of *Indian corn, large farms and open ranges* in our own country. In what we have here undertaken, the obvious course would be to descant somewhat on the various breeds of hogs, as on this the size of the animal and his habits, his physical capacity, the quality of his meat depend. Some, especially the large breeds, have thick skins and a coarse grain of meat, while others have thin skins, with a more delicate and juicy fibre. Of this last description we should be disposed to rank the Spanish black hog, such as was introduced more than twenty-five years ago, by that "fine old Commodore" and natural gentleman, *Commodore Chauncey*—as a great number of very valuable things, indeed, were introduced, about that time, by our old officers of the Navy; many more than the public have any idea of now, but of which, being at the time, more than any one else, personally cognizant, it will be our grateful pleasure, some of these days, to render an account.

The Spanish hog brought by Commodore Chauncey was, if we mistake not (the original or the progeny), presented to the late *Robert Smith*, formerly Secretary of the Navy, and President of the Maryland State Agricultural Society, and, in all places and positions, the gallant and accomplished gentleman. In England they reckon not less than twenty breeds, or breeds under twenty names.

For a hog to make good bacon, we should certainly *not* go, for instance, to Boston for the breed of Amos Wood's sow, that weighed alive in 1819 only 1106 pounds, having gained 510 pounds in 365 days. Yet Agricultural Societies continue to offer premiums for *large hogs*, as if they expected thereby to develop some new principle in swine-ology. For those who go for weight, it may be proper to add that Mr. Wood gave his sow a *salt fish*, and the water in which it was boiled, once a week. *Buffon* mentions a hog killed in England which weighed 853 pounds; *Sonnini*, his commentator, another, killed in France, which weighed 990; and Mr. *Jefferson*, in his notes, mentions one killed in Virginia that reached the enormous weight of 1200 pounds.

But, on reflection, we must defer to a more convenient season our observations on the breed and management of hogs, as it would, of itself, make a paper for all the space we can spare. Moreover, it is *now* too late to give advice as to *breeds*; for the time is nearly at hand for the farmer to kill such as he has; and for those who put up their own meat to buy the best they can get. Our own impression is, however, that among the best breeds ever imported for the region of good bacon, before described, were the hogs sent to this country by a Mr. WRIGHT, an English farmer, to Mr. SKINNER, then Editor of the American Farmer. They were a long, well proportioned, neatly formed, black hog—if anything, rather large. They got into great repute in Virginia, and were there called the “Skinner breed,” in the neighborhood of Richmond, on the James River. Mr. George Patterson, of Springfield, is said to have improved them—it may be after some degeneracy from the original stock—by a judicious cross. He has at present a large number of most beautiful, symmetrical little Berkshires—alike, some two or three dozen of them, in shape and size, as so many peas from the same pod; and would make a most attractive pen, and carry off premiums at a cattle-show, with those who go for fat, pretty things; but he condemns them as being too small, weak on the loin, and bad breeders. They have fallen into general disfavor in the South. But of all hogs that have come within our knowledge, from abroad, none have been altogether equal, in all points, to the famous “*Parkinson hog*,” which was landed in Alexandria in 1800, and which, it is said, were sent a present to General Washington, but were, it is said, by Parkinson taken to himself by a *misappropriation*! They were remarkably *square-built* hogs, with broad backs, round bodies, rather small legs of middling length; built up in the body on the model of the Bakewell sheep; black and white spotted, with a slight predominance of white, and of middling size; neither too short-legged nor too fat to travel in search of the natural food, without which no good bacon can be had. If any one yet has this breed in anything like its original excellence, we should like to know who; but of this we have little hope, since that most observant and sagacious grazier we have ever known, the late William Steenbergen, of the valley of Virginia, told us twenty-six years ago, and twenty years after the importation, that he considered them the most perfect animals he had ever seen; and that their first cross on our native hogs was equally perfect; *but that, after breeding in and in, they degenerated into a character vastly inferior to either of the original kinds.* If any man's agricultural sayings deserved to take the force of axioms, his did.*

* Since writing the above, we have seen a hog very nearly resembling the old Parkinson, in the sty of Mr. Lewis Morris, near Fordham, in Westchester Co. His *pigs* were farrowed in March, and he expects them to net 175 pounds at Christmas. They are fed on corn, and *hard* corn at that—the Yellow Dutton.

{Ed. Farm. Lib.

It is in this same way that, with very, very few exceptions, all improved imported animals—Berkshire hogs among the rest—have degenerated. Those—the few—who have the spirit to buy, commonly get but a pair, and go on breeding without recourse occasionally to other families and prime individuals of the same breed; and hence the inevitable consequence, deterioration. If here we refer again to the example of Mr. Patterson, of Springfield, as effectually avoiding this error in breeding his Devon and other stock, it is because it is our *bounden duty* to hold up the example of men who have the sagacity to comprehend what is necessary, and the spirit to carry it out. Liberal as was the supply of North Devons originally sent to this country by Mr. Cooke to Mr. Patterson's father, if he had gone on breeding, as Mr. Caton did, from the same stock, without having recourse, as Mr. P. does, every two or three years, to the best to be had in England, the Devon stock would by this day have been degenerated and condemned. Instead of which, we very lately saw 26 Devon cows and heifers in one lot, with an imported bull, the like of which for beauty, considering the number—for form, color and size, are not elsewhere to be seen in the United States, if in England. In respect of the breed of hogs best adapted to good bacon, let us quote the opinion of a much esteemed and judicious friend, Evan Thomas, of Baltimore: "I may also add that much of the reputation of Maryland and Virginia hams is owing to the breed of hogs, a mixture of the European and African races. The small bone, thin skin and high flavor are derived from the latter. A cross with the Chinese has produced a disposition to take on more flesh." But we must try back if we would "*save our bacon*."

To have the best hams, then, it is indispensable to have hogs *corn-fed*, and *not too large*; we should say from 120 to not exceeding 160. The disposition of the fat when not frozen will afford a pretty good criterion for those who have to buy their hogs, which is usually done some time in December. The fat should be hard, and crack about the kidneys into small squares, like beef suet. Eschew such whose fat is more tenacious, inclined to transparency, adhering to the fingers, and bearing the complexion of lard. The lard of corn-fed pork, when tried, on getting cold, becomes hard and white. We incline to the opinion, however, that if hogs have been left to run at large, and can be taken up in good condition, as they are sometimes, even fat, from the mast, a much shorter period of corn-feeding than is generally supposed will answer.

And here we may lay it down as a general principle, applicable in this case, that when an animal is fattening to be killed, his life should be taken when he gets at his best, without leaving him to fall off, either from want of appetite or food, under the impression that he may be re-fatted. When the hog has got in fine order on mast, and that is over, give him corn, or corn meal and clean water, for two weeks, and then give him the knife. And this was the opinion more than two centuries ago, when people knew much more of the practice of husbandry than we are apt to suppose, only they did n't understand the reasons why, as well as we are beginning to understand them; and the better we do, the more certain will be the results. Thus it was old Tusser's advice,

"Let hog, once fat,
Lose nothing of that;
When mast is gone,
Hog falleth anon."

The general practice, however, is to corn-feed them for four, five, and even six weeks; and this *may* be best, but it certainly makes dear meat of it.

The flavor and texture of all kinds of meat is much more quickly changed than

we are apt to imagine. A highly respected correspondent once made to us the following statement: "In the year 1770 I resided in New-Jersey, where it was the custom to take great numbers of wild pigeons in spring-nets, by the assistance of decoy pigeons. The flesh of these birds, when first taken, is always very dark, and most generally tough. I have seen more than 300 of them confined and fed in a large corn-house, and in one week their flesh has not only become tender, but as white as a well-fed chicken." It is well known that cattle fed upon oil-cake cannot be immediately killed with advantage; but, if kept from it for two or three days, the oily taste is effectually removed. The late Gen. Forman, of Rose Hill, Maryland, once told us that the taste of garlic would pass out of the flesh and very marrow of a bullock, if kept from it 24 hours before being killed. We are, on the whole, disposed to think that two weeks' feeding on corn would be sufficient not only to divest the meat of any unacceptable flavor, but to harden it—saying nothing of the saving to be thereby accomplished.

We will suppose, then, that you have your *corn-fed* hogs, that have attained the proper consistence of flesh by wholesome exercise, and the peculiar flavor to be derived from roaming in the woods and wallowing in the mud;* and what next?

Cutting up.—On this point it is deemed proper to warn against the practice of some in permitting the shoulder to be cut *large*, with some of the ribs attached; because the shoulder requires three weeks to smoke, while the middlings need only two. The shoulder should therefore be cut as short as possible. On the other hand, and on various points, we may here give the caution suggested by friend Thomas, who says: "It is proper here to mention that *hams* are generally cut too short, causing a great loss of juice, both in curing and boiling. The knife should be passed very near the kidneys, through what is called the 'small of the back.' There the vessels converge, and soon close up in drying."

Next, as to salting. There is too much disposition to apply an over-dose, in the fear of losing the meat, but the saltiness of meat depends more on time than quantity. For every 1,000 pounds of meat, three pecks of salt, with one-third or one-half pound of saltpetre, is sufficient. It will be better to mix equal quantities of Liverpool and ground alum salt, for in very soft weather the Liverpool will run off almost too quickly, while in dry, cold weather the alum is too slow to do its office within the proper time. This composition should be well rubbed on on both sides, and then sprinkled thickly on the cut surface of the meat. There is no danger of oversalting from quantity; it is length of time that has that effect; but a larger quantity would be wasted: and let every farmer and housewife remember that "every little makes a mickle." The meat should now be laid in good casks—the hams first, skin downward, and then the shoulders, chines, jowls, spare-ribs, &c.

In two weeks the casks are to be emptied, and all but hams and shoulders removed, being salted sufficiently; while those larger pieces, the hams and shoulders, are to be re-packed, putting those which seem the least salted lowest among the brine. A change of position is necessary, for the pressure is so great that the brine will not press equally through the meat, if it is not once thus turned and shifted. Some deem a tight vessel for catching the brine unnecessary, if not injurious. In that case there is not the less necessity to shift the meat and re-sprinkle salt, if so placed as that the superincumbent weight is considerable.—The late Jacob Gibson, of Talbot County, famous for his good bacon as for some

* Hence, in Maryland called a "mud-lark"—ham or shoulder, the wing of a mud-lark.

other remarkable things, bored holes in the bottom of his meat-casks to let the brine run off. Three weeks is sufficient for the shoulders, and four for the hams to remain in salt. Every piece of meat, on being taken from the salt, should be cleanly washed by dipping a cloth in clean hot water, and washing off the salt brine and dirt.

On the use of *sugar*, there is much difference of opinion and practice; as in France about dressing salad, every company is divided into factions. There is the faction of the three and the faction of the five parts of oil to one of vinegar; and, according to the strength of these factions at dinner, the dressing is prepared by a member of the one or the other: and these factions, it must be admitted, have the public weal about as much at heart as *some others* that serve to keep States in agitation. Our own persuasion is, after much inquiry and some experience, that sugar is altogether superfluous; and we have known very observant managers not only omit the use of it, as we believe the majority do, but some contend that it may even be prejudicial. We will here give the solicited suggestions of our friend, Evan Thomas, whose letter has been already quoted:

"The hams being neatly trimmed, insert a string through the *upper* or broad end; then rub the outside and edges well with fine salt. Two heaped tea-spoonsfull of a mixture of finely powdered saltpetre and pure red pepper should be spread over each ham, on the inner or fleshy side, and pressed well in with a broad table or butcher's knife. Let them lie 3 or 4 hours, to imbibe the mixture; then spread on each ham six ounces of coarse brown sugar, and finally cover them with salt. Pack them closely in boxes or tubs that will permit the drippings to pass off freely. Take care to cover every bare spot with salt. Let them lie 20 or 21 days; if very large, a little more sugar and saltpetre mixture may be added, and they may remain 4 or 5 days longer in salt.

General Remarks.—The hogs when killed should be hung up to cool, but on no account be permitted to freeze. When frozen, let them be perfectly thawed before the salt is applied. When hung up in the smoke-house, let *no open fire be kindled in moist or rainy weather*. I use a small sheet-iron stove, in which a little fire may be put every day—sufficient to keep a dry atmosphere, and prevent mould on the meat. In dry, clear weather, a small hickory fire may be made once in 5 or 6 days. In fine, moderate weather, let a free current of air pass through the house. When sufficiently cured, before the insects appear, put them in paper bags and hang them up.

N. B.—I would recommend the salt to be rolled or pounded fine."

To the above we will now append the observations with which we were favored for the American Farmer, more than twenty-eight years ago, before any other agricultural paper came into existence, by the late Dr. Wilkins, of Baltimore—a man as remarkable for closeness of observation as for the soundness both of his judgment and *his bacon*—on the use of sugar and saltpetre:

"It will be perceived that I have not mentioned the article sugar, so much esteemed by many. Ten years' experience with it, and ten years' experience without it, have fully corrected my judgment on this article. If any person will try two parcels, one with and the other without sugar, he will find the following result: That his bacon cured with sugar will be deprived of the fine red color two months longer for that addition; therefore it is certain that it interferes with the saltpetre, and, if the saltpetre is of any service, the sugar prevents that, and I presume it adds nothing to compensate.

"The fresh, mawkish taste of the saltpetre is admirably adapted to temper the excessive

sapid flavor of common salt, while the beautiful red color is highly pleasing to the eye. It likewise interferes with the salt, and prevents too large a quantity from being absorbed, and thus preserves the meat from that hardness which bacon acquires when this article is left out. Hickory ashes I am told answer nearly all the good purposes of saltpetre."

"A small chimney in brick houses, on a corner of the wall, may be useful to let out the smoke, but *no* holes in the wall to admit a ray of light. Some chips and a few billets of hickory make the best smoke—these will also keep the house *warm*, which is very important; for if the smoke-house is *cold*, as will be the case when the smoke is carried by a

flies from a lower story or another house, all our former care will be lost—a damp will settle on the bacon, and it will have a bitter flavor.

“Mr. A——, of Baltimore, taught me never to make a smoke in damp weather—a practice so much followed; for, as he observed, his meat gained no color, but got a bad taste. I am satisfied he was correct; and he had large experience, as he followed smoking for gain. One good fire per diem will smoke the pieces exactly in the same times they were salted, viz. hams 4 weeks, shoulders 3 weeks, other pieces 2 weeks. When the bacon is smoked and all returned to the smoke-house, a floor, if not laid before, should now be laid on the joist; by this means rats will be prevented from descending on the bacon, and the heat of the sun will be moderated, so that the bacon will not drip in summer heats. Darkness and coolness are necessary to preserve the bacon from flies; it may there hang in

perfect safety till wanted. But a prudent housekeeper will inspect his meat in May and June, and then he will see the quality of his meat; that which is not corn-fed will crack and offer places of deposit for skippers, which should be filled up with ashes; and, if any are already deposited, let the ashes be taken out of the hearth as hot as fire, and put in.—The meat that is corn-fed will be close all around the cut. A ham of the first kind will shrink in boiling, and cut but a poor figure on the table, while the latter will swell to roundness, and overlook the dish—will look as proud, if not as warlike, as Juvenal’s lobster. When the sharp carver enters the cover, the essence will flow in a stream and fill the whole dish—a most delightful sauce! Such a dish, with boiled poultry and savoy, though often repeated, never loses its relish with the laborious husbandman, and he seldom thinks of any other to set before his guest.”

Thus, then, reader, we have told you what is necessary, as far as depends on yourself, to have hams such as we will venture to say the Queen of England never saw, of her own curing. The next thing to be attended to is, how to preserve them from *flies and skippers*; and, finally, *how to cook them*. But we are pressed for room, and it is time enough for that before your meat is smoked. It shall not be forgotten. In the mean time, however, a few more last words in

VINDICATION OF THE RIGHTS OF THE HOUSEWIFE!—On this head we may repeat that, while we shall ever claim from the ladies the performance of duties properly within their province, we shall as studiously resist the imposition of burdens which are alike incompatible with their position in the domestic circle, and the delicacy of their constitution. We mean then to say that the superintendence of the cutting up, and salting, and smoking the meat for the year’s family consumption, *does not properly belong to the lady of the house*; although we know that, time immemorial, this task has been, in many neighborhoods, imposed on them. It is a heavy, coarse, laborious operation, which ought to be done under the *eye of the master*. It is his duty to prepare *everything* for the hands of the *cook*, and it is not until everything for the table is placed away under lock and key, that the wife should be called on for *her attention*.

There is good sense in the homely lines of old Father Tusser. Let both husband and wife take the hint:

“Good usage, with knowledge and quiet withal,
Makes huswife to shine as sun on the wall;
What husband provideth with money, his drudge
The huswife must look to, which way it doth trudge.”

AGRICULTURAL ZEAL.—At a late meeting in Ireland for the discussion of an agricultural question, there were present from four to five thousand persons. Call a meeting in this country to take measures for compelling law-makers to provide for appropriate *instruction* for their sons in Agriculture, or for the imposition of a duty on free articles that might be produced at home, and you would not be able to get as many together as would make the Presidents, Vice-Presidents and Secretaries of a “party” meeting! But summon them to attend to form a military company, or to take measures for the success of *the party*, and you would find them flocking in from all quarters, like hogs coming in all directions when, on a frosty morning, the swineherd winds his horn, or cries c-h-o-k-e! c-h-o-k-e! c-h-o-k-e!

HONOR INVENTORS!

IMPLEMENTS AND IMPLEMENT MAKERS.

PENNOCK'S REVOLVING RAKE.

AGRICULTURAL SOCIETIES in our country, and perhaps in all countries, bestow too large a proportion of their attention and premiums on sleek *animals* and big crops, and too little on *implements*, and on experiments, and for the ascertainment of new facts in respect of crops, manures, &c.

What we need most is cheaper labor, and more thorough tillage and preparation of the land. The place of cheaper labor must be supplied by every possible contrivance in the structure of implements for saving labor; hence it would be far better to give \$100 for a new and improved implement, such as Pennock's Revolving Rake, than to give \$20 for the best animal, if not very extraordinary. Great inducements should be offered, too, for the application of steam to agricultural purposes. Let any one reflect for a moment how much manual labor it supplies in factories, on railroads, in navigation, &c. and he cannot but desire to see it doing more for Agriculture.

There is no class of benefactors more liable to the effects of piracy and ingratitude than *inventors*—and especially inventors of improvements in implements and machinery applied to agricultural uses. The abuse in these cases takes place all over the country, so that it becomes impossible to arrest it.

We have been struck with the truth and force of this fact in many cases, and in none more than in that of the *Revolving Rake*, invented by friend Pennock, of Delaware. If, in the business of manufacturing or of navigation, a man had invented an improvement of equal labor-saving efficacy, it would have made him independent forever; and if the agricultural community were to make him up \$25,000, they would do him no more than justice. This admirable implement is used not only all over our country, we believe, without leave or license from the inventor, but over Europe also. We saw it everywhere in our travels the past summer. If Agricultural Societies cannot otherwise reward such men, the least they can do is to make honorable mention of them in their annals. But reward is chiefly bestowed and premiums offered for large and fat animals *because* they are animated forms, that fill the eye and that serve to collect a crowd and swell out a show.

Ought premiums to be given, in any case, where the native animal is not at least equal to the imported ancestor, if of full blood? If they be, are they not virtually premiums for *advancing backward*? Would not any agricultural implement that would enable a farmer to do with it double as much of any given sort of work in a day as he can do now, be better worth a premium than all that have been given for largest crops of Indian corn the last seven years? In a single county in England, where astonishing progress has been made, and where formerly they assigned only \$150 of prizes to the implement department, they now appropriate \$1,000.

Our implement-makers are to the agricultural community what the Quartermaster's Department is to the Army. Let their ingenuity be stimulated and rewarded by every means at the command of all associations got up for the pro-

motion of agricultural improvement—for our *Republican Government*, be it remembered, has no reward in reserve for *that* sort of merit or discovery. Let their largest premiums bear the names of distinguished inventors. Let us have the Whitney Premium—the Pennock Premium—the Hussey Premium—the Rugles and Nourse Premium—the Prouty and Mears Premium—the Buel—the Ruffin—the Garnett—the Walsh—the Moore, and the Lowell, &c. Premiums.—Print their names in large letters on premium books and premium plate. Do anything but take up old premium lists 30 years old, and alter the dates, and vamp them up and proclaim them anew!

THE PITCH-PINE TREE:

DANGER OF ITS EXTINCTION—THE CAUSE AND THE REMEDY.—INJURIOUS EFFECTS OF THE UNIVERSAL PURSUIT OF POPULARITY.

IN the first volume of this work we published a lucid exposition of the business of gathering tar and turpentine—its process and profits—for which we felt, as did the public, much indebted to Col. McLEOD, of Smithville, North Carolina.

We were struck with his remark that there are no new crops of pitch-pine coming on in regular succession to those which have been destroyed; and that this source of our national strength and wealth appears to be in a fair way of being extinguished.

We are inclined to believe in the truth of the suggestion of a much respected correspondent that the reason is to be found in the destruction of the young pine by *hogs*. To them the root is as acceptable as any of the esculent vegetables. The pine grows the first year or two, as does the carrot, with a large, succulent, and, to the hog, very palatable *tap-root*, and, of course, according to the modern theory of vegetation in regard to trees, without any *lateral* roots, at that stage of its existence. Hence the animal is able at once to devour the root and extirpate the tree. Thus is it that a few miserable runts are not only protected but encouraged to destroy the prospect of one of the greatest and most important of our naval stores and of public income—one as necessary in a public as it is valuable in a private view; and this merely because, in North Carolina and other States congenial to the growth of this most valuable tree, the *fence laws* of our mother country have been exactly reversed. In England the owners of stock are required to *fence them up*, so that the fruits of special agricultural labor may receive no detriment; but our wise men, sacrificing everything to a truckling policy, have required the farmer to fence his cultivated fields against the *vagrant* stock of his neighbor, who being either poorer or more lazy, or both, than the farmer, must have the privilege, forsooth, of allowing his hogs to *range the whole county in quest of food*—thus at once subjecting the farmer to a heavy poor tax, and injuring the whole stock of the country. But this is not the only instance in which the great interests and the morals of society are endangered and sacrificed to a mean and pernicious hunting after popularity. It converts aristocrats at heart into miserable demagogues, and fills the land with sycophants and hypocrites, with venders of alcoholic poison and licensed receivers of stolen goods.

This single perversion of public policy, which requires every man to guard his

crops against depredation, instead of requiring every man to keep up his stock or make him answerable for double the amount of the injury it may do to his neighbors, costs this country many, many hundred millions of dollars—more than all the buildings and other improvements together. Let any man having 500 acres of land, calculate the first outlay and the interest on the cost of his timber or stone fences, and the view of the result will prompt him to ask the question, Is there no remedy for an evil so enormous? Agricultural Societies would do much better were they to unite their influence and devote themselves to inquiries after remedies for such grievances, than in giving premiums for match horses and fat hogs. But to them nothing is so startling as a proposition to inquire into remedies for political and moral evils that work injuriously to the interests they represent. In the New-York State Agricultural Society it was even made a question whether it was within their province to entertain any discussion or to express any opinion as to the policy of legislative encouragement to *direct, express agricultural education!*

Farmers willingly submit to be taxed, and pay large sums annually for educating the privileged few in the science of war, in Army and Navy schools, but they seem to cower and tremble when it is proposed that they should have the presumption to demand an equal or proportionate amount for instruction in the great, all-sustaining art of Agriculture! Not even agricultural journals, with a very few exceptions, are seen to stand up for and insist upon it.

You will see grave Senators adjourn their legislative sittings, as at Annapolis, to go and see midshipmen fire cannon, at the expense of their constituents, and yet dare not open the inquiry, How much does this cost, and might we not in like manner have the mechanical principles of plows and threshing-machines exemplified and explained at the expense of the Government, at a Normal school, with far more benefit to the real interests of Society?—When will farmers wake up to a sense of what is due to common sense and to their own rights?

BOTANY AS A BRANCH OF AGRICULTURAL EDUCATION.—How long before the following will apply to any American College?

Examination Paper used in University College, London, for the Senior Class of Botany: Midsummer, 1847.—1. What is protoplasm? and what its chemical differences from the cell-wall? 2. Describe briefly the structure, station and supposed origin of starch, and the use of it in the vegetable economy. 3. What are hairs? 4. Can hairs be used advantageously in distinguishing plants from each other? Give examples. 5. Describe the nature of the fibro-vascular tissue of a leaf, its origin, its position, and its use. 6. What is the use of leaves to plants? 7. How does it happen that some plants, although incapable of forming leaves, nevertheless perform their functions perfectly in their absence? 8. What is albumen? How does it originate? What physiological purpose

does it serve? 9. What is vitellus? and in what natural orders does it occur? 10. What are the most usual properties of leguminous plants? 11. How would you distinguish Marants from Gingerworts? 12. State briefly the botanical difference between Myrtle-blossoms, Citronworts, Tutsans, and Rueworts, all of which have dotted leaves; and mention the usual properties of each. 13. Suppose that allspice (*Eugenia acris* and *Pimento*) were mixed with pepper (*Piper nigrum*), and the two were roughly pounded together, by what mark would you expect to detect the mixture? 14. Let pepper and Larkspur-seed be pounded together, could you then detect the mixture? and how?

John Lindley, Ph. D., F. R. S., Professor.

INTERESTING CHEMICAL FACT.—Water saturated with one-third of its weight of common salt will still dissolve sugar; and if completely charged with carbonic acid, it will dissolve iron.

LETTER XI.

THE MOST PROFITABLE BREED OF SHEEP FOR THE SOUTH.—PRINCIPLES OF BREEDING.

Breeds should be adapted to the circumstances of a Country... Circumstances requiring a Mutton Sheep... Comparison between Mutton Sheep—The South-Downs, Leicesters and Cotswolds... How far the Feed Markets, &c., of the South demand such breeds... What breed of Sheep will give the greatest value of Wool from the feed of an acre?... Comparative Consumption and Wool Product of the Mutton breeds and the Merino—Other Expenses—Comparative Hardiness, &c... A pound of fine wool can be grown as cheaply as a pound of coarse—worth more for market or for consumption... The Mutton of the Merino and its Crosses... What sub-variety of the Merino best adapted to the wants of the South?... Review of the History of Wool-Growing and the Wool Markets since 1824... Tariffs and Prices... Injudicious course of the Manufacturers—Have discouraged the growth of fine wool and encouraged that of medium and coarse... A surplus of medium wools, and a bare or short supply of fine... Manufacturers now in the power of fine wool growers... Interest of the Manufacturers to encourage the growth of fine wools by paying better prices—are beginning to do so—will be compelled to continue this course... Will the North furnish the increasing demand?... No—Reasons... Fine wool in every point of view more profitable than coarse for cultivation in the South... Comparison between Merinos and Saxons... Crosses between them... Points which constitute excellence in a Merino—proper size—per centage of wool to live-weight—shape and general appearance—skin—wrinkles... The wool—what parts it should cover—its gum—length and weight of fleece—evenness—style—softness—serration—manner of opening, &c... Principles of breeding... In and-in breeding... Crossing... English Crosses with the Merino... Views of Mr. Livingston concerning the use of cross-bred rams—of the French breeders—of the author... Great importance of starting a flock with choice rams—with different strains of blood.

Dear Sir: No one breed of sheep combines the highest perfection in all those points which give value to this race of animals. One is remarkable for the weight, or early maturity, or excellent quality of its carcass, while it is deficient in quality or quantity of wool; and another which is valuable for wool, is comparatively deficient in carcass. Some varieties will flourish only under certain conditions of feed and climate, while others are much less affected by those conditions, and will subsist under the greatest variations of temperature, and on the most opposite qualities of verdure.

In selecting a breed for any given locality, we are to take into consideration *first*, the feed and climate, or the surrounding natural circumstances; and, *second*, the market facilities and demand. We should then make choice of that breed which, with the advantages possessed, and under all the circumstances, will yield the greatest net value of marketable product.

Rich lowland herbage, in a climate which allows it to remain green during a large portion of the year, is favorable to the production of large carcasses. If convenient to markets where mutton finds a prompt sale and good prices, then all the conditions are realized which call for a *mutton*, as contradistinguished from a *wool-producing* sheep. Under such circumstances, the choice should undoubtedly, in my judgment, rest between the improved English varieties—the South-Down, the New Leicester, and the improved Cotswold or New Oxfordshire sheep. In deciding between these, minor and more specific circumstances are to be taken into account. If we wish to keep large numbers, the Down will herd* much better than the two larger breeds; if our feed, though generally plentiful, is liable to be shortish during the drouths of summer, and we have not a *certain* supply of the most nutritious winter feed, the Down will better endure occasional short keep: if the market calls for a choice and high-flavored mutton, the Down possesses a decided superiority. If, on the other hand, we

* That is, remain thriving and healthy when kept together in large numbers.
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wish to keep but few in the same inclosure, the large breeds will be as healthy as the Downs; if the pastures be wettish or marshy, the former will better subsist on the rank herbage which usually grows in such situations; if they do not afford so fine a quality of mutton, they, particularly the Leicester, possess an earlier maturity, and both give more meat for the amount of food consumed, and yield more tallow.

The next point of comparison between the Long and Middle woolled families, is the value of their wool. Though not the first or principal object aimed at in the culture of any of these breeds, it is, in this country, an important item or incident in determining their relative profitableness. The American Leicester* yields about 6 lbs. of long, coarse, combing wool; the Cotswold something more, but this perhaps counterbalanced by other considerations; the Down from 3 lbs. to 4 lbs. of a low quality of carding wool. None of these wools are very salable, at remunerating prices, in the American market. Both will become more so, as manufactures of worsted, and of flannels and baizes, increase. The difference in the weight of fleeces between the breeds is, *per se*, a less important consideration than would first appear, and for reasons which will be given when I speak of the connection between the amount of wool produced and the food consumed, by sheep.

Of the Cheviots I have taken no notice in this connection, as they are obviously inferior to the preceding breeds, except in a capacity to endure rigorous weather, and to subsist on heathy herbage. No part of the South has a climate too severe for the more valuable races, and its grasses and other esculents, wherever found, and as far as they go, are, making the proper allowances for wet and dry lands, highly palatable and nutritious to all the varieties which respectively feed in such situations.

Under the natural and artificial circumstances already alluded to, which surround Sheep Husbandry in many parts of England—where the fattest and grossest quality of mutton is consumed as almost the only animal food of the laboring classes—the heavy, early maturing New Leicester, and the still heavier New Oxfordshire sheep, seem exactly adapted to the wants of producer and consumer, and are of unrivaled value. To depasture poorer soils—sustain a folding system—and furnish the mutton which supplies the tables of the wealthy—the South-Down is an equal desideratum.

Have we any region in our Southern States, where analogous circumstances demand the introduction of similar breeds? The climate, so far as its effect on the *health* is concerned, is adapted to any, even the least hardy varieties; but not so its effects on the verdure on which they are to subsist. The long, scorching summers, so utterly unlike those of England, leave the grass on lands stocked heavily enough for profit, entirely too dry and short for the heavy, sluggish Long Wools. This is particularly true in the tide-water zone. Mutton, too, sheeted over externally with three or four inches of solid fat,† even if it could be made acceptable to the slave, in lieu of his ration of bacon—a thing more than doubtful—would never find any considerable market off from the plantation. So far as the supply of feed is concerned, the above remarks apply, though not equally, to the South-Down. It will live and thrive where the Long Wools would dwindle away, but it is a mistake to suppose that the heavy im-

* I use the word "American" Leicester, because it is notorious that this, as well as the Cotswold—and all the other heavy English varieties, soon lose in the weight of their fleeces when subjected to the climate and the (best ordinary) system of feeding in the United States. I should except, perhaps, a few highly pampered animals.

† Five and even six inches of solid fat, on the rib, is not uncommon in England. In the Cotswolds the fat and lean are more intermixed, and the mutton is of a better quality; but it would be considered entirely too luscious and tallowy by Americans.

proved South-Down will subsist, and attain its proper weight and fatness, on very poor or very scant herbage. The old *unimproved* variety would, like some other smallish and hardy races, obtain a living on keep as poor as that which grew on the lightest and thinnest soils of Sussex. Moulded by the hand of Ellman, and other breeders, to better fulfill the conditions of a mutton sheep, in size and other particulars, they demand that increased supply of food which the formation of additional fat and muscle require. Retaining some of the properties of the parent stock, they are less sluggish, and bear travel better than the Long Wools; but with them as with the latter, and *all other animals*, much or prolonged exercise in pursuit of food or otherwise, is unfavorable to obesity. Men, and particularly *owners*, in advocating the claims of this breed and that, seem not unfrequently to forget that the general physical laws which control in the development of all the animal tissues as well as functions, are uniform. Better organs will doubtless make a better appropriation of animal food; and they may be taught, so to speak, to appropriate it in particular directions—in one breed, more especially to the production of fat—in another, of muscle or lean meat—in another, wool. But, *ceteris paribus*, large animals will always require more food than small ones. Animals which are to be carried to a high state of fatness must have plentiful and nutritious food, and they must exercise but little in order to prevent the unnecessary “combustion” in the lungs, of that carbon which forms more than seven-tenths of their fat. No art of breeding can countervail these established laws of Nature.

Again, there are no facilities in the South for marketing large quantities of mutton—of a tithe of that which would be annually fitted for the shambles, were Sheep Husbandry introduced to anything like the extent I have recommended, and with the *mutton breeds* of sheep. With few cities and large villages—with a sparse population—with an agricultural population the greatest drawback on whose pecuniary prosperity is their inability to market their own surplus edibles—not a particle of rational doubt can exist on this point. True, I have expressed the opinion that, both as a matter of healthfulness and economy, mutton should be substituted for a moiety of the bacon used on the plantation; but with such a change, in a country so exclusively agricultural, each landholder would raise his own supply, and thus no market be created. It may then be regarded as a settled point that the production of wool is the primary, the great object of Southern Sheep Husbandry.

In instituting a comparison between breeds of sheep for wool-growing purposes, I will, in the outset, lay down the obviously incontrovertible proposition that the question is not what variety will shear the heaviest or even the most valuable fleeces, irrespective of the cost of production.—Cost of feed and care, and every other expense, must be deducted, to fairly test the profits of an animal. If a large sheep consume twice as much food as a small one, and give but once and a half as much wool, it is obviously more profitable, other things being equal, to keep *two* of the smaller sheep. The true question then is, *with the same expense in other particulars, From what breed will the verdure of an acre of land produce the greatest value of wool?*

Let us first proceed to ascertain the comparative amount of food consumed by the several breeds. There are no satisfactory experiments which show that *breed*, in itself considered, has any particular influence on the quantity of food consumed. It is found, with all varieties, that the consumption is in proportion to the live weight of the (grown) animal. Of course, this rule is not invariable in its individual application, but its gen-

eral soundness has been satisfactorily established. Spooner states that grown sheep take up $3\frac{1}{2}$ per cent. of their weight in what is equivalent to dry hay per day, to keep in store condition. Veit places the consumption at $2\frac{1}{2}$ per cent. My experience would incline me to place it about midway between the two. But whatever the precise amount of the consumption, if it is proportioned to the weight, it follows that if an acre is capable of sustaining three Merinos weighing 100 lbs. each, it will sustain but two Leicesters weighing 150 lbs. each, and two and two-fifths South-Downs weighing 125 lbs. each. Merinos of *this weight* often shear 5 lbs. per fleece, taking flocks through. The herbage of an acre, then, would give 15 lbs. of Merino wool, and but 12 lbs. of Leicester, and but $9\frac{3}{5}$ lbs. of South-Down (estimating the latter as high as 4 lbs. to the fleece)! Even the finest and lightest fleeced sheep ordinarily known as Merinos, average about 4 lbs. to the fleece, so that the feed of an acre would produce as much of the highest quality of wool sold under the name of Merino, as it would of New Leicester, and more than it would of South-Down! The former would be worth from fifty to one hundred per cent. more per pound than either of the latter! Nor does this indicate all the actual difference, as I have, in the preceding estimate, placed the live-weight of the English breeds low, and that of the Merino high. The live-weight of the four-pound fine-fleeced Merino does not exceed 90 lbs. It ranges from 80 to 90 lbs., so that 300 lbs. of live-weight would give a still greater product of wool to the acre.* I consider it perfectly safe to say that *the herbage of an acre will uniformly give nearly double the value of Merino, that it will of any of the English Long or Middle wools.*

The important question now remains, What are the *other* relative expenses of these breeds? I speak from experience when I say that the Leicester† is in no respect a hardier sheep than the Merino—indeed, it is my firm conviction that it is *less hardy*, under the most favorable circumstances. It is more subject to colds, and I think its constitution breaks up more readily under disease. The lambs are more liable to perish from exposure to cold, when newly dropped. Under *unfavorable* circumstances—herded in large flocks, pinched for feed, or subjected to long journeys—its capacity to endure, and its ability to rally from the effects of such drawbacks, do not compare with those of the Merino. The high-bred South-Down, though considerably less hardy than the unimproved parent stock, is still fairly entitled to the appellation of a hardy animal. In this respect I consider it just about on a par with the Merino. I do not think, however, it will bear as hard stocking as the latter, without a rapid diminution in size and quality. If the peculiar merits of the animal are to be taken into account in determining the expenses—and I think they should be—the superior fecundity of the South-Down is a point in its favor, as well for a wool-producing as a mutton sheep. The South-Down ewe not only frequently yeans twin lambs, as do both the Merino and Leicester, but she possesses, unlike the latter, nursing properties to do justice by them. But this advantage is fully counterbalanced by the superior longevity of the Merino. All the English mutton breeds begin to rapidly deteriorate in amount of wool, capacity to fatten, and in general vigor, at about 5 years old; and their early maturity is no offset to this, in a sheep kept for wool-growing purposes. This early decay would require earlier and more rapid slaughter or sale than would always be economically convenient, or even possible, in a region situated in all respects like the South. It is well, on

* It is understood that all of these live-weights refer to ewes in fair ordinary, or what is called *store* condition.

† I speak of full-blood Leicesters. Some of its crosses are much hardier than the pure bred sheep.

properly stocked farms, to slaughter or turn off the Merino wether at four or five years old, to make room for the breeding stock; but he will not particularly deteriorate, and he will richly pay the way with his fleece, for several years longer. Breeding ewes are rarely turned off before *eight*, and are frequently kept until *ten* years old, at which period they exhibit no greater marks of age than do the Down and Leicester at *five* or *six*.—I have known instances of Merino ewes breeding uniformly until 15 years old! The Improved Cotswold is said to be hardier than the Leicester; but I have said less of this variety, throughout this entire Letter, as from their great size* and the consequent amount of food consumed by them, and the other necessary incidents connected with the breeding of so large animals, the idea of their being introduced as a *wool-growing sheep* anywhere, and particularly on lands grassed like those of the South, is, in my judgment, utterly preposterous. There is one advantage which all the coarse races of sheep have over the Merino. Either because their hoofs do not grow long and turn under from the sides, as do those of the Merino, and thus hold dirt and filth in constant contact with the foot, the coarse races are less subject to the visitations of the hoof-ail, and, when contracted, it spreads with less violence and malignity among them. Taking all the circumstances connected with the peculiar management of each race, and all the incidents, exigencies, and risks of the husbandry of each fairly into account, I am fully convinced that the expenses, other than those of feed, are not smaller *per capita*, or even in the number required to stock an acre, in either of the English breeds above referred to, than in the Merino. Nor should I be disposed to concede even equality, in these respects, to either of those English breeds, excepting the South-Down.

You write me, Sir, that many of the South Carolina planters are under the impression that coarse wools will be most profitably grown by them, *first*, because there is a greater deficit in the supply, and they are better protected from foreign competition; and, *secondly*, because they furnish the raw material for so great a portion of the woollens consumed in the South. Each of these premises is true, but are the conclusions legitimate? Notwithstanding the greater deficit and better protection, do the coarse wools bear as high a price as the fine ones? If not, they are not as profitable, for I have already shown that *it costs no more to raise a pound of coarse than a pound of fine wool*. Nay, a pound of *medium* Merino wool can be raised *more cheaply* than a pound of the South-Down, Leicester, or Cotswold! This I consider clearly established.

Grant that the South requires a much greater proportion of coarse than of fine wool, for her own consumption. If a man needing iron for his own consumption, wrought a mine to obtain it, in which he should happen to find gold equally accessible and plentiful, would it be economical in him to neglect the more precious metal because *he wanted to use the iron*? or should he dig the gold, obtain the iron by exchange, and pocket the difference in value? Would it be economical to grow surplus wool, wool for market, worth from 25 to 30 cents per pound, when it costs no more per pound to grow that worth from 40 to 45 cents? And even for the home want, for the uses of the plantation—for slave-cloths, &c.—*fine wool is worth more per pound than coarse for actual wear or use*? Is this proposition new and incredible to you? I challenge the fullest investigation of its truth, through the testimony of those familiar with the subject, or through the direct ordeal of experiment. It is true that a piece of fine broadcloth is not so strong, nor will it wear like a Chelmsford plain of treble thick-

* I saw two at the late N. Y. State Fair, at Saratoga, which weighed over 300 lbs. each!

ness. The threads of the former are spun to extreme fineness to economize the costly raw material. To give it that finish which is demanded by fashion—to give it its beautiful nap—these threads are still farther reduced by “gigging” and “shearing.” But spin fine wool into yarn as coarse as that used in Chelmsfords, and manufacture it in the same way, and it would make a far stronger and more durable cloth. The reasons are obvious. Merino wool is decidedly stronger than the English coarse Long and Middle wools—or any other coarse wools—in proportion to its diameter or bulk. It felts far better, and there is therefore a greater cohesion between the different fibres of the same thread, and between the different threads. It is also more pliable and elastic, and consequently less subject to “breaking” and abrasion.

Unless the views I have advanced are singularly erroneous, it will be seen that, for wool-growing purposes, the Merino possesses a marked and decided superiority over the best breeds and families of coarse-wooled sheep. As a mutton sheep, it is inferior to some of those breeds, but not so much so as it is generally reputed to be. If required to consume the *fat and lean together*, many who have never tasted Merino mutton, and who have an unfavorable impression of it, would, I suspect, find it more palatable than the luscious and over-fat New Leicester. The mutton of the cross between the Merino and “Native” sheep would certainly be preferred to the Leicester, by anybody but an English laborer used to the latter. It is short-grained, tender, and of good flavor. The same is true of the crosses with the English varieties. These will be, hereafter, more particularly alluded to. Grade Merino wethers (say half-bloods) are favorites with the Northern drover and butcher. They are of good size—extraordinarily heavy for their apparent bulk*—make good mutton—tallow well—and their pelts, from the greater weight of wool on them, command an extra price. They would, in my opinion, furnish a mutton every way suitable for plantation consumption, and one which would be well accepted in the Southern markets.

In speaking of the Merino in this connection, I have in all cases, unless it is distinctly specified to the contrary, had no reference to the Saxons—though they are, as it is well known, pure-blooded descendants of the former.

Assuming it now as a settled point, that it is to the Merino race that the wool-grower must look for the most profitable sheep, let us now proceed to inquire which of the widely varying sub-varieties of this race are best adapted to the wants and circumstances of the South. A brief glance at the history of wool-growing, and of the wool markets, for the last few years, will form an useful preliminary inquiry, and will assist us materially in arriving at a correct conclusion.

On the introduction of the Saxons, about twenty-four years since, they were sought with avidity by the holders of the fine-wooled flocks of the country, consisting at that time of pure or grade Merinos. The Tariff of 1824 imposed a duty of 20 per cent. on wools costing above 10 cents per pound, gradually rising to 30 per cent., and 15 per cent. on those costing less than 10 cents. Foreign woollen cloths† were subject to an *ad valorem* duty of 30 per cent. until June 30th, 1825, and after that it was raised to 33½ per cent. The Tariff of 1828 immediately raised the duty on all wools to 40 per cent. *ad valorem* and 4 cents per pound specific duty, and 5 per cent. was to be annually added to the *ad valorem* duty, until it should reach 50

* On account of the shortness of their wool, compared with the coarse breeds.

† Where I use the word “cloths” here and in the statements of the different Tariffs which follow, you will understand that I do not include carpetings, blankets, worsted stuff goods, &c.

per cent. (in 1831.) The duty on woolen cloths was also raised (after June, 1829) to 45 per cent., and that exceeding \$4 the square yard to 50 per cent. Under the decisive encouragement offered to both the wool-grower and manufacturer by this Act, a great impetus was given to the production of the finest wools, and the Saxons everywhere rapidly superseded, or bred out by crossing, the Spanish Merinos. The latter disappeared almost entirely from New-York and New-England. In the fine-wool mania which ensued, weight of fleece, constitution, and everything else, were sacrificed to the quality of the wool. The Tariff of 1832 imposed a 40 per cent. *ad valorem* and 4 cents per pound specific duty on wools costing over 8 cents; and it raised the duty on all broadcloths to 50 per cent. It made wools costing less than 8 cents per pound free of duty. The "Compromise" Tariff of 1833 commenced a system of progressive reductions until the maximum rate of duties should not exceed 20 per cent. The following Table will give the duties of each year, on wool and cloths, under this Act, estimating the *ad valorem* and specific duties on wools exceeding 8 cents, together in an average per centage :*

TABLE 14.

	Per ct. <i>ad val.</i>	1833.	1835.	1837.	1839.	1841.	1842.
Wool costing less than 8 cents per pound } at place of exportation..... }	free.	free.	free.	free.	free.	free.	20
Wool costing over 8 cents per pound.....	54	50·60	47·20	43·80	40·40	30·20	20
Woolen cloths	50	47	44	41	38	29	20

The Tariff of 1841 struck out the 20 per cent. duty on the 8 cent wools. The Tariff of 1842 again imposed an *ad valorem* duty of 5 per cent. on wools costing *seven* cents or under, and raised it on the higher wools to 30 per cent. *ad valorem* and 3 cents per pound specific duty, and on cloths to 40 per cent. *ad valorem*. The Tariff of 1846 established an *ad valorem* duty of 30 per cent. on all wools, and on cloths. By referring to Table 7, Letter V., it will be seen that the prices of wool have not been controlled by the amount of the protection. They reached their maximum in 1836, and then fell off, not again to rally, (except during the single year 1839)—not again to reach 40 cents—until 1844. Why was this? What produced the sudden depreciation of 1837? The Tariffs of 1828 and 1832 gave *too much protection* to both wool-grower and manufacturer. Their pursuits became the *El Dorado* of agricultural and mercantile speculators. Skill without capital, and capital without skill, and in some cases probably thirst of gain without either, rushed into these favored avocations. The bank inflations of the period fanned the fires of speculation, and taught some of the wisest commercial heads of the country to forget the providence that had hitherto distinguished them. The natural result followed. In the financial crisis of 1837, manufacturing, and all other monetary enterprises which had not been conducted with skill and providence, and which were not based on adequate and real capital, were involved in a common destruction, and even the solidest and best conducted institutions of the country were shaken by the fury of the explosion. Wool suddenly fell almost 50 per cent. (from 54 to 30 cents per pound.)† In 1838 it rallied a little, and in 1839 it again reached 50 cents, but it went down nearly to the minimum point in 1840. The grower began to be discouraged. He who bred the delicate Saxons, (and, as I have already said, they now comprised the flocks of nearly all the large wool-growers in the country,)

* The reduction of one-tenth of the excess over 20 per cent. took place Dec. 31st, each year, to 1841; then one-half of the residue of the excess; and on the 30th of June, 1842, the other half of said residue was deducted.

† The quality of the wools here alluded to will be found specified in a note on the second page of Letter V.

was not obtaining the actual first cost per pound of his wool. He clamored loudly for an increase of duties on the foreign article, as the reductions of the "Compromise" Act were now approaching their ultimate standard—20 per cent.—and he attributed the low prices to this cause: Saxon wool continued low, and did not pay its first cost in 1841 and 1842. Was this due solely to the reduction of the Tariff? A reference to Table 11 (Letter IX.) will show that the import of foreign woollens was less from 1836 up to and including 1842, than for the six preceding years! Where then was the foreign competition which was driving the manufacturer to keep down the price of wools? The Tariff of 1842 raised the duty on wool 10 per cent. and added a specific duty of 3 cents per pound; and it raised the duty on cloths from 20 to 40 per cent. The import of foreign woollens sunk, the succeeding year, to a lower point than it had touched since 1821, and in 1844 and 1845 it did not reach the *average* of the six years preceding the enactment of the Tariff of 1842. A reference to Table 9 (Letter IX.) will show that the import of foreign *fine* wools also largely fell off. This coincided with the expectations of the advocates of a higher Tariff, but another and equally legitimate expectation entertained by the great body of Northern wool-growers—that *they* were to *share* in the benefits arising from the exclusion of foreign competition—was signally disappointed. The Tariff of 1842 was enacted on the 30th day of August, and part of the clip of that year was sold under its operation. Wool sold that year *lower* than it had for the five preceding years, viz., for 30 cents. The next year it advanced one penny! General discouragement now seized upon the growers of fine wool. The market was not overstocked—foreign competition was light, but *still they could not* sell their wool for its first cost! To add to their mortification, the manufacturer, by a most short-sighted policy, would scarcely make a discrimination of 6d. per pound between Saxon wool and medium Merino and grade wools weighing nearly twice as much to the fleece. If the grower of medium wool got 25 cents per pound for fleeces weighing 4 lbs.—thus realizing \$1 per fleece—the ordinary Saxon grower would get but 30 cents per pound for fleeces weighing 2½ lbs., and thus realize but 75 cents! * When the Saxon growers found that the Tariff of '42 brought them no relief, they began to give up their costly and carefully nursed flocks. The example, once set, became contagious, and there was a period when it seemed as if all the Saxon sheep of the country would be sacrificed to this reaction. Many abandoned wool-growing altogether, at a heavy sacrifice of their fixtures for rearing sheep. Others crossed with coarse-wooled breeds, and rushing from one extreme to the other, some even crossed with the English mutton breeds! Some more judiciously went back to the parent Merino stock, but usually they selected the heaviest and coarsest wooled Merinos, and thus materially deteriorated the character of their wool. As the preceding period had been distinguished by its mania for *fine* wool, this was, by its mania for *heavy fleeces*! † The English crosses, however, were speedily abandoned. ‡ The Merino regained his

* And though the larger, stronger sheep, bearing the medium wool, would eat more, it was far hardier, required less protection and care of every kind, and would increase more rapidly—circumstances which would far more than counterbalance its excess of consumption.

† I make no claim of having possessed greater sagacity or foresight in these particulars than the mass of breeders. I began with the Merino. These I crossed with the Saxon, and I also bred the pure-blood Saxons for several years. Unsatisfied with these, I made some experiments with the English mutton breeds, both as pure bloods and crosses. Finding none of them equal to the Merino as a wool-producing sheep, I returned to the latter, and I bred for *heavy fleeces* until the manufacturers saw fit to make a juster discrimination in the prices paid by them for the different qualities of wool.

‡ I mean by those who sought to improve their *fine-wooled* flocks by an English cross. English and all other coarse-wooled sheep are immensely and rapidly improved, for wool-growing purposes, by a proper fine-wooled cross, as I have already and shall again have occasion to mention.

supremacy, lost for nearly twenty years, and again became the popular favorite. It was generally adopted by those who were commencing flocks in the new Western States, and gives its type to the sheep of those regions.

It will be seen from the preceding facts that the supply of fine wool* has proportionably decreased, and that of medium and coarse increased. This has driven the manufacturers to make a juster discrimination in prices. They now realize that their own short-sighted economy has been all but fatal to fine wool-growing in the United States. And they cannot but feel that in destroying this interest, *they destroy themselves*. Our manufacturers are not so miserably blind as to dream of drawing their raw material from foreign countries—of paying an import duty of 30 per cent. and then competing with the English manufacturer who pays an import duty not exceeding two pence per pound! It is doubtful, in my mind, whether the home supply will not fall considerably short of the home demand for fine wool *for this year!*† The point has been already reached where but a little more discouragement, or a little *longer continued* discouragement, would have banished these wools from the country! So far, the manufactories have not felt this evil, for they have not been compelled to import. Neither pampered nor persecuted by the Tariff of 1846—called for by the consumption of the country—with solid capital and greater experience and skill at their command—they are rapidly increasing, and rising on a solid basis than ever before. So, to *sustain our manufacturing interest*, (that engaged in the manufacture of fine cloths,) it is absolutely necessary that the diminution of *fine* wools be not only immediately arrested, but that the growth of them be immediately and largely increased. These facts now first beginning to be clearly appreciated by the manufacturer—will deter him from resorting to his former suicidal policy. Instances have recently come to my knowledge of manufacturers offering to contract with fine-wool growers for their entire clips, for a term of years, at an advance on present prices—prices, be it remembered, higher than they have been except for two years (1839 and 1844) since the overthrow of 1837. Should the manufacturer, however, again forget his own interest, the fine-wool grower has it in his power to teach it to him most effectually. Instead of being discouraged and driven from the business, he has but to withhold his wools for a season—say for a few months, to compel the former to import wools at a ruinous cost—stop his machinery, or pay fair prices at home! I believe in no combinations to control prices. Something far better than vague report, however, says that several of the large manufacturing establishments of New-England employed the *same agents*, last season, to buy much, if not all of their wools—and that these wools were subsequently divided by bidding or otherwise, among the parties to the transaction! *Is this denied?* I think it will not be denied. If this was so, what was it but a combination to control prices?‡ But whether

* To make myself clearly understood, I will, in the remarks which follow, classify wools as follows: *superfine*, the choicest quality of wool grown in the United States, and never grown here excepting in comparatively small quantities; *fine*, good ordinary Saxon; *good medium*, the highest quality of wool usually known in the market as Merino; *medium*, ordinary Merino; *ordinary*, grade Merino and perhaps selected South-Down fleeces; *coarse*, the English long wools, &c. This subdivision is not minute enough, by any means, to express fully the number of well-defined classes which exist in wool. A farther multiplication of them here, however, I have thought would only tend to confusion.

† The position has been all along taken that the general supply was under the demand, but the deficit hitherto has been principally in medium and coarse wools. See Table 9, Letter IX.

‡ And before leaving this point, I will ask another question: Why were most of the wools of New-York and New-England untouched and unlooked at by the agents of the manufacturers this year, contrary to all preceding customs for two or three months subsequently to shearing? These same agents flocked in droves to the Western States and bought up their entire clip immediately after shearing, while reports were constantly coming back that this manufactory and that had purchased its entire supply for a year, or perhaps two years? Was this because the Eastern growers demanded exorbitant prices? Was it because anything like an approach to a supply of fine wools could be found in the West? Or was it the result of a

so or not, when we compare the profits which have inured to the growers and manufacturers of fine wool for the last few years, it behooves the former both to *speak* and *act* decidedly. Their interests have been sacrificed *long enough*! But it is to be hoped that the grower of these wools will not be hereafter driven to the alternative of either suffering himself, or of defending himself by retaliatory measures. Some few of the manufacturers have always, I believe, taken a high and liberal course. Enough others, as already remarked, now see the necessity of such liberality to prevent any combined or general effort to depress prices.

Will the North again turn its attention to the growth of superfine and fine wools—again supply the demand, and keep up with it as it increases? Not unless stimulated by the inducement of extraordinary profits—not, certainly, against the competition of the South. The climate north of 41°, or, beyond all dispute, north of 42°, is too severe for any variety of sheep *commonly known*, which bear either of these classes of wools. In fact, the only such variety, in anything like general use, is the Saxon; and this is a delicate sheep, entirely incapable of safely withstanding our Northern winters, without good shelter, good and regularly administered food, and careful and skillful management in all other particulars. When the season is a little more than usually backward, so that grass does not start prior to the lambing season, it is difficult to raise the lambs of the mature ewes—the young ewes will in many instances disown their lambs, or, if they own them, not have a drop of milk for them; and if in such a crisis, as it *often happens*, a north-east or north-west storm comes driving down, bearing snow or sleet on its wings, or there is a sudden depression of the temperature from any cause, no care will save multitudes of lambs from perishing.* And it will not do to defer the time of having them dropped to escape these evils, or they will not attain size and strength enough to pass safely through their first winter.† A few large sheepholders, whose farms, buildings, etc., have been arranged with exclusive reference to the rearing of these sheep, may continue to grow fine wool *until driven from it by the competition of the South*; but many of these have recently adopted a Merino cross. The ordinary farmers, the small sheepholders, who, in the aggregate, grow by far the largest portion of our Northern wools, have imbibed a deep-seated aversion—nay, a positive disgust—against the Saxon sheep. They have not the necessary fixtures for their winter protection, and they are entirely unwilling to bestow the necessary amount of care on them. Besides, mutton and wool being about an equal consideration with this class of farmers, they want larger and earlier maturing breeds. But, above all, they want a strong, hardy sheep, which demands no more care than their cattle. The strong, compact, medium-wooled Merino—or, perhaps still more generally, its crosses with coarse varieties, producing the wool which I have classified as ordinary—will be the general favorites.—The same reasons will weigh still more strongly in the North-west, where, as I have shown, the climate is a still worse one for delicate sheep. All these causes will tend to swell the amount of medium, ordinary and coarse

concerted movement to bring the Eastern grower into taking last year's prices? It actually did so, in a multitude of instances—or, he was contented to receive the slightest advance on them! This will be found true of nearly all who sold soon after the market opened in the East. If not the result of a concerted and combined movement, the *general* desertion of the Eastern and resort to the Western market by the manufacturers was a most singular coincidence! These manufacturers are now *fain* to purchase Eastern wools at a *considerable* advance from the prices of 1846—and, as already hinted, it is highly problematical, in my mind, whether they will not be compelled to *import* at a still higher advance, to eke out a deficiency! It is to be hoped that this will be the last *Act* in the *drama* of folly and suicide played by our manufacturers.

* Not even in close barns, and with constant attendance.

† North of latitude 42°, it is necessary, as a general rule, that lambs be dropped in the first half of May, to give them this requisite size and strength. Occasional cold storms come nearly every season up to that period, and not unfrequently up to the first of June. Mr. Grove was a decided advocate of early lambs.—He used to say that "it was better to lose two of them in the spring than one in the fall."

wools. Though the reaction has been but recent, the market demand for medium and ordinary wools is now better supplied—nearer being glutted, so far as I am enabled to judge—than that for fine and superfine. And should the market become glutted with either or both, it is important to remember that the *latter* will be far more profitable for *export* than the former.

Every consideration, then, in my judgment, points to wools ranging from good medium upward, instead of the lower classes, as the most profitable staples for cultivation in the South. The only question which now arises on this point is, from which variety, the Saxon or Merino, shall the South attempt to cultivate these wools?

It is generally supposed, and as a general thing it is true, that the Merino bears no better wool than that which I have classified as good medium. But the measurements of Dr. Emmons (given in Letter X.) show, by the infallible testimony of the microscope, that heavy-fleeced Merinos sometimes equal—nay, surpass Saxons, in fineness. The fact is more decisive, as the Saxon fibres there measured came not only from the most celebrated flocks—from the prize sheep at State Fairs—but it also came from samples, in most instances, given by the *owners* for *public exhibition*. I do not claim that Merinos like these are common. They are rather to be regarded in the light of those prodigies of excellence which occasionally appear, but which it is difficult to reproduce with anything like uniformity. Nor are lesser fleeced Merinos, bearing wool equal to ordinary Saxon, very common. During the *fine wool mania*, all, who sought fine wool, bred the Saxon sheep, or crossed with it; and the few who stood out, and clung to the Merino, generally aimed to distinguish it as widely as possible from the former, by increasing the weight of its fleece, to the disregard of its fineness. This, too, was the general disposition during the *heavy-fleeced mania*. Of consequence, but very few of our breeders have ever, or until recently, sought a high degree of fineness in fleece in breeding the Merino. Recent experience has satisfied me that this is rapidly attainable. Mr. Lawrence, in a quotation already made by me (in Letter I.), says: "I believe a breed may be reared which will give four pounds of exquisitely fine wool to the fleece." I know by multiplied experiments that once interbreeding between an ewe bearing good medium wool (the fleece weighing, say, from 4½ lbs. to 5 lbs.), with a Merino ram of sufficiently high quality, will produce wool in the offspring equaling ordinary Saxon, and a fleece averaging 4 lbs., with none of its weight made up of *gum*. The result of *two* such interbreedings will bring the progeny of a heavy-fleeced medium ewe (provided her fleece is properly *even*) to the same point. The four-pound fine-fleeced Merino would be a far more profitable animal than the Saxon, other things being equal. But other things are not equal. The former is every way a hardier animal, and a better nurse. *It is about 20 lbs. heavier, and therefore consumes more feed; but I consider this additional expense more than counterbalanced by the additional care and risk attending the husbandry of the Saxon. If required to keep the number good, and give the proper attention to the rearing of lambs, I would sooner engage to keep, at the same price, one thousand such Merinos for a year, than to keep the same number of Saxons.

It would be practicable, doubtless, to increase the Saxon's fleece to 4 lbs.; but any one, familiar with such experiments, knows that it is far easier to increase fineness of wool, by diminishing weight of fleece and carcass a little, than it is to increase weight of fleece and carcass without lowering the quality of the wool. And there is this additional objection to the latter

system of breeding, so far as the Saxon is concerned. The breeder is not only called upon to increase the weight of its fleece and carcass, but to engraft on it hardiness of constitution, nursing properties, etc., which by no means follow, as a matter of course, its improvement in the former particulars. These, and particularly the latter, could only be attained, so as to be transmissible with a proper degree of certainty from parents to offspring, by years of breeding, accompanied by a rigorous course of selection. If, therefore, you were called upon to *form* a variety just suited to your wants, the Merino would present the most ductile and the safest materials. But the Southern agriculturist, just entering upon sheep-rearing, would not be prepared to conduct nice experiments in breeding. He wants a breed or variety already prepared to his hand. And for the same reasons, notwithstanding the fineness of his climate, he wants a hardy breed—one that demands no extra skill, no great experience, for its management. Merinos reaching or closely approaching the standard above specified are now to be found, while there is no corresponding variety of Saxons; and to incur the risks arising from inexperience, want of preparation, &c., the superior hardiness of the former would, of course, render them entirely preferable.

Some have recommended a cross between the Saxons and Merinos, as a cheap and ready method of obtaining a four-pound fine-fleeced sheep. A properly selected Saxon ram, crossed with good medium and medium-wooled Merino ewes, cutting from 5 lbs. to 5½ lbs. of wool, will almost uniformly produce this result. And it is easier *now* to get the Saxon than the Merino, fine enough for this purpose. Or a flock may be bred up from Saxon ewes and a Merino ram. The objection to both courses is the same, though not equal to that which exists against breeding the full-blood Saxons—viz., the production of a feeble and a poor nursing sheep. The latter evil, especially, clings for generations to these cross-bred animals, so far as my experience and observation have extended. And unless Saxons are selected which do not possess the characteristic faults of the variety, the cross-breeds are inferior to pure-blood Merinos in many *other and essential* particulars, notwithstanding the fleece may be all that we desire.

There is another important point where the pure-blood Merino possesses a marked advantage. Few Southern wool-growers will *commence* their flocks exclusively with high-bred animals of any kind. With a few of them to breed rams from, and to *gradually* grow up a full-blood flock, they will *mainly* depend upon grading up the common sheep of the country. With the long-legged, bare-bellied, open-wooled sheep common in the South (as it once was in the North), the Saxon makes an indifferent cross. Their faults run too much *in the same direction*, in all save the fineness of wool, for, however good its shape, the wool of the Saxon is comparatively short and open. It therefore shortens the wool of the common sheep, without adding much or any to its thickness, and thus the fleece remains a light one. Precisely all this is the reverse of what results from a cross between the Merino and the common sheep. The wool is but little shortened, unless the staple of the common sheep was very long; it is essentially thickened; it is made to extend over the belly; the fleece is, therefore, greatly increased in weight; the sheep is rendered more compact and "stocky," and it is brought nearer to the ground. Even the first cross, though its fleece is somewhat *uneven*, is a prime sheep for the wants of ordinary farmers, and among these it is, accordingly, a decided favorite, over the whole Northern States. A majority of them would, I think, give it preference over any other kind or variety of sheep. Two or three more proper Merino crosses raise it to the rank of a *first-rate wool-growing sheep*—scarcely

inferior to the full-blood Merino in anything, save that *it does not transmit its good qualities with quite so much certainty to its offspring.**

Let us now proceed to inquire what are the points which constitute excellence, or mark a departure from it, in the class of Merino sheep which I have attempted to show form, in every point of view, the most suitable variety to commence wool-growing with in the South. What should be its size, weight of fleece, shape, general appearance, style of wool, &c. &c.?

Size, within extremes, is not, *per se*, a matter of much consequence.—There should, however, be *uniformity* in this particular, at least through the same flock, not only for their good appearance, but larger sheep are apt, by their superior strength, to crowd away small ones from the rack or trough. A sheep very small of *its breed and family*, is commonly less hardy. If very large, *it must travel farther to fill itself*; and, therefore, this would be an objection to it in a breed designed to graze on short and scant pasturage—for the extra exercise thus made necessary would cause it to waste (in the form of carbon, in the lungs) a considerable portion of the food, which would, under other circumstances, be converted into animal tissues. Very large, like very small animals, of the same species—and, I am inclined to think, the former more frequently—lack the robustness, vigor of muscle, capacity to endure unusual and protracted exercise, or privation of food, or any other unfavorable deviation from ordinary habits, possessed by compact medium-sized animals. This rule will be found to apply among all domestic animals. Lastly, I am not prepared to prove, but I *believe* that, with the *same breeding*, the woolly, like the osseous and muscular tissues of a large Merino sheep, will not be as fine as those of a smaller one. I do not found this opinion, so far as wool is concerned, upon, nor do I claim that it is supported by, any analogies. I state it as solely the result of individual observation. If it is a tendency which can be successfully resisted, I never have been fortunate enough to have a sufficient number of instances brought under my eye, in any one flock, to have them constitute anything more than sparse exceptions to what I deem a well established rule. I have never known a family of very large Merinos bearing anything better than medium wool; and the first step to any decided improvement in them immediately reduces their weight, for it can only be effected by interbreeding with finer and smaller families. Ewes weighing from 80 lbs. to 90 lbs. alive, in good fair store condition, are of about the proper size, in my judgment, where *fine wool* is the object.† Rams should weigh 40 lbs. or 50 lbs. more. Ewes of the large Merino families weigh from 100 lbs. to 110 lbs.—the rams 50 lbs. more; nor do even these equal the size of some of the late imported French Merinos.

A relation analogous to the preceding one, exists between the weight of the fleece and its quality. This point has already been sufficiently set forth on another page. The opinion is there expressed that the Merino may be easily bred, by judicious selection of sire and dam, to bear 4 lbs. of fine wool, or wool equalling ordinary Saxon. I would now add that, as a *general rule*, and in large flocks, I do not believe *more* than this can be obtained, without a depreciation in the quality, among ewes. The ram's fleece should in all cases, in a very superior animal, be about double that of the ewe. Five per cent. of the live-weight of the carcass, with ewes, is the maximum weight of *fine wool*, which we can, in the present state of breeding, look for with any uniform certainty. This would give a fleece of 4 lbs. to 80 lbs. of live-weight. As the fine-wool Merinos increase, and thus give a wider range and better selection of materials for nice experi-

* The latter point will be more particularly adverted to in a subsequent part of this Letter.

† Saxons weigh about 20 lbs. less.

ments, it is very possible that the per centage of the fleece may be increased. Mr. Lawrence, in speaking of attaining a four-pound fleece of "exquisite" quality, undoubtedly alluded to the wool which I have classed as superfine. The four-pound fleeced *fine* Merino can undoubtedly be made *superfine*, by diminishing the weight of its fleece 10 or 12 ounces or a pound; and even then it will be a hardier and better animal than the finer class of Saxons which now produce this wool. But whether Mr. Lawrence's standard can be fully attained, neither experience nor observation enable me to decide. If it could, and the sheep be equal to the four-pound *fine*-fleeced Merino in other respects, we should have a *perfect sheep*. Such wool has sold this year at upward of 60 cents per pound, which would bring the fleeces to \$2 40 a piece! It may be well here to glance at the comparative worth of fleeces in the several Merino families, taking this year's prices, and taking the weights which are usually found accompanying the several qualities, in prime ordinary flocks. A *fine* fleece of 4 lbs., at 50 cents,* would be worth \$2; good medium, weighing 4½ lbs., at 40 cents, \$1 80; medium, weighing 5 lbs., at 32 cents, \$1 60. And the consumption of feed rises with the diminution of quality. Admitting the daily consumption of hay for 150 days to be 3 per cent. to the live-weight, 100 fine Merinos, averaging 85 lbs. each, would consume about 19 tons of hay; and 100 medium Merinos, averaging 105 lbs. each, would consume about 23½ tons—an important difference in their relative expenses! The fine-wooled Merino does not, like the Saxon, lose his advantage in this particular by his inferior hardiness.

The shape and general appearance of the Merino should be as follows: The head should be well carried up, and in the ewe hornless. It would be better on many accounts to have the ram also hornless, but, being usually characteristic of the Merino, many prefer to see them. The face should be shortish, broad between the eyes, the nose pointed, and in the ewe fine and free from wrinkles. The eye should be bright, moderately prominent, and gentle in its expression. The neck should be straight (not curving downward), short, round, stout—particularly so at its junction with the shoulder, forward of the upper point of which it should not sink below the level of the back. The points of the shoulder should not rise to any perceptible extent above the level of the back. The back, to the hips, should be straight; the crops (that portion of the body immediately back of the shoulder-blades) full; the ribs well arched; the body large and capacious; the flank well let down; the hind-quarters full and round—the flesh meeting well down between the thighs, (or in the "twist.") The bosom should be broad and full; the legs short, well apart, and perpendicular, (*i. e.*, not drawn under the body toward each other when the sheep is standing.) Viewed as a whole, the Merino should present the appearance of a low, stout, plump, and—though differing essentially from the English mutton-sheep model—a highly symmetrical sheep.

The skin is an important point. It should be loose, singularly mellow, of a rich, delicate pink color. A colorless skin, or one of a tawny, approaching to a butternut hue, indicates bad breeding. On the subject of wrinkles, there is a difference of opinion. Being rather characteristic of the Merino—like the black color in a Berkshire hog, or the absence of all color in Durham cattle—these wrinkles have been more regarded, by novices, than those points which give actual value to the animal; and shrewd breeders have not been slow to act upon this hint! Many have contended that more wool can be obtained from a wrinkled skin; and this is the view

* This is not high for *fine* Merino wool. Though I sold my lot for 42 cents, I was offered 50 cents for the fleeces of nearly all my later-bred sheep, if I would sell them separately.

of the case which has induced both the Spanish and French breeders to cultivate them—the latter to a monstrosity. I confess that I agree, to a considerable extent, with Mr. Joshua Kirby Trimmer,* that “this idea is as wild as that which some of our theorists have entertained, that, by laying lands in high ridges and low furrows, the surface of the earth and its produce is increased.” Though I once entertained a different opinion, the steel-yards have satisfied me that an exceedingly wrinkled neck does not add but a little to the weight of the fleece—not enough to compensate for the deformity, and the great impediment which it places in the way of the shearer. I have owned rams, the labor of shearing six of which, in a nice and workmanlike manner—cutting the wool off short and smooth, on and among the multitude of folds and wrinkles—was fully equivalent to shearing fifteen ordinary Merino rams, or twenty-five ewes—that is to say, a day’s work for one man. And none but a skillful shearer could, with *any* time given him, clip the wool short and smooth among the wrinkles, without frequently and severely cutting the skin. A smoothly drawn skin, and absence of all dewlap, on the other hand, would not, perhaps, be desirable.

The wool of the Merino should densely cover the whole body, where it can possibly grow, from a point between and a little below the eyes, and well up on the cheeks, to the knees and hocks. Short wool may show, particularly in young animals, on the legs, even below the knees and hocks—but long wool covering the legs, and on the nose below the eyes, is unsightly—without value—and on the faces it frequently impedes the sight of the animal, causing it to be in a state of perpetual alarm, and disqualifying it to escape real danger. Neither is this useless wool, as seems to be thought by some, the slightest indication of a heavy fleece. I have as often seen it on Saxons scarcely shearing 2 lbs. of wool, and on the very lightest fleeced Merinos.

The amount of *gum* which the wool should exhibit, is another of the mooted points. Here, as in many other particulars, experience has changed my earlier impressions. Merino wool should be yolky or “oily,” prior to washing—though not to that extreme extent, giving it the appearance of being saturated with grease, occasionally witnessed. The extreme tips of the wool may exhibit a sufficient trace of gum to give the fleece a darkish cast—particularly in the ram—but a black, pitchy gum, resembling semi-hardened tar, extending an eighth or a quarter of an inch into the fleece, and which *cannot be removed in ordinary washing*, is, in my opinion, decidedly objectionable. There is a white or yellowish *concrete* gum, not removable by common washing, which appears in the *interior* of some fleeces, which is equally objectionable.

The weight of fleece remaining the same, medium length of staple, with compactness, is preferable to long, open wool, inasmuch as it constitutes a better safeguard from inclemencies of weather, and better protects the sheep from the bad effects of cold and drenching rains in spring and fall. The wool should be as nearly as possible of even length and thickness over the whole body. Shortness on the flank, and shortness or thinness on the belly, are serious defects.

“Evenness of fleece” is a point of the first importance. Many sheep exhibit good wool on the shoulder and side, while it is far coarser and even hairy on the thighs, dewlap, &c. Rams of this stamp should not be bred from by any one aiming to establish a superior fine-wooled flock, and all such ewes should be gradually excluded from those selected for breeding.

The “style of the wool” is a point of as much consequence as mere

* “Practical Observations on the Improvement of British Fine Wools, &c.” by the above, 1828.

fineness. Some very fine wool is stiff and the fibres almost straight, like hair. It has a dry, *cottony* look. This is a poor, unsalable article, however fine the fibre. Softness of wool—a delicate, silky, highly elastic feel, between the fingers or on the lips, is the first thing to look after. This is usually an index, or inseparable attendant, of the other good qualities, so that an experienced judge can decide, with little difficulty, between the quality of two fleeces, in the *dark*! Wool should be finely serrated or crimped from one extremity to the other—*i. e.*, it should present a regular series of minute curves, and, generally, the greater the number of these curves in a given length, the higher the quality of wool in all other particulars. The wool should open on the back of the sheep in *connected masses*, instead of breaking up into little round spiral ringlets of the size of a pipe-stem, which indicate thinness of fleece; and when the wool is pressed open each way with the hands, it should be dense enough to conceal all but a delicate rose-colored line of skin. The interior of the wool should be a pure, glittering white, with a lustre and “liveliness” of look not surpassed in the best silk.

The points in the *form* of the Merino which the breeder is called upon particularly to eschew, are—a long, thin head, narrow between the eyes—a thin, long neck, arching downward before the shoulders—bad crops—back falling behind the shoulders—narrow loin—flat ribs—steep, narrow hind quarters—long legs—thighs scarcely meeting at all—legs drawn far under the body at the least approach of cold. All these points were separately or conjointly illustrated in many of the Saxon flocks which have been recently swept from the country. The points to be avoided in the fleece have been sufficiently adverted to.

Having thus attempted to establish a standard for the Merino-breeder, it remains that we examine some of the most important principles, in breeding, by which that standard is to be reached or maintained.

The first great starting-point, among pure-blood animals, is that “like will beget like.” If the sire and dam are perfect in any given point, the offspring will generally be; if either is defective, the offspring will (subject to a law presently to be adverted to) be half way between the two; if both are defective in the same point, the progeny will be more so than either of its parents—it will inherit the amount of the defect in both parents *added together*. There are exceedingly few perfect animals. Breeding, then, is a system of counterbalancing—breeding out—in the offspring, the defects of one parent, by the marked excellence of the other parent, *in the same points*. The highest blood confers on the parent possessing it the greatest power of stamping its own characteristics on its progeny; but blood being the same, the male sheep possesses this power in a greater degree than the female. We may, therefore, in the beginning, breed from ewes possessing any defects short of cardinal ones, without impropriety, provided we possess the proper ram for that purpose; but the flockmaster, aiming at a high standard of quality, should *gradually* throw out from breeding all ewes possessing even considerable defects. Every year should make him more rigorous in his selection. But from the beginning—and in the beginning more than at any other time—the greatest care should be evinced in the selection of the ram. If he has a defect, that defect is to be inherited by the whole future flock. If it is a material one, as, for example, a hollow back, bad crops, a thin fleece, or a highly uneven fleece, the flock will be one of low quality and little value. If, on the other hand, he is perfect, the defects in the females will be lessened, and gradually bred out. But it being difficult to find *perfect* rams, we are to take those which have the fewest and lightest defects, and none of

these material ones, like those just enumerated. And these defects are to be met and counterbalanced by the decided excellence (sometimes running to a fault) of the ewe, in the same points. If the ram is a little too long-legged, the shortest-legged ewes should be selected for him; if gummy, the driest-wooled ewes; if his fleece is a trifle below the proper standard of fineness, (but he has been retained, as it often happens, for weight of fleece and general excellence,) he is to be put to the finest and lightest fleeced ewes, and so on. Having a selection of rams, this system of counterbalancing would require little skill, if each parent possessed but one fault. If the ewe was a trifle too thin fleeced, and good in all other particulars, it would require no nice judgment to decide that she needed to be bred to an uncommonly thick-fleeced ram. But most animals possess, to a greater or less degree, several defects. To select so that every one of these in the dam shall meet its opposite in the male, and *vice versa*, requires not only plentiful materials to select from, but the keenest discrimination. The time and the convenient method of selecting the ewes for the several rams, and the subsequent management, will be hereafter pointed out.

We will now suppose that the breeder has established his flock—that he has done so successfully, and given them an excellent character. He is soon met with a serious evil. He must “breed in-and-in,” as it is called—that is, interbreed between animals more or less nearly related in blood—or he must seek rams from other flocks, to the risk of losing or changing the distinctive character of his flock, hitherto sought so sedulously, and built up with so much care. It is contended by the opponents of in-and-in breeding that it renders diseases and all other defects hereditary, and that it tends to decrease of size, to debility, and a general breaking up of the constitution. Its apologists, on the other hand, insist that, if the parents are perfectly healthy, incestuous connexion does not, *per se*, tend to any diminution of healthiness in the offspring; and they also claim, what must be conceded, that it enables the skillful breeder much more rapidly to bring his flock to a particular standard or model—and much more easily to keep it there—unless it be true that, in course of time, they will dwindle and grow feeble. So far as the effect on the constitution is concerned, both positions may be, to a certain extent, true. But it is, perhaps, difficult to always decide with certainty when an animal is not only free from disease, but from all tendency or predisposition toward it. A brother and sister may be apparently healthy—may be actually so—but may possess an idiosyncrasy which, under certain circumstances, will manifest itself.—If these circumstances do not chance to occur, they may live, apparently possessing a robust constitution, until old age. If bred together, their offspring, by a rule already laid down, will possess the idiosyncrasy in a double degree. Suppose the ram be interbred with sisters, half-sisters, daughters, grand-daughters, &c., for several generations, the predisposition toward a particular disease—in the first place slight, now strong, and constantly growing stronger—will pervade, and become radically incorporated into, the constitution of the whole flock. The first time the requisite exciting causes are brought to bear, the disease breaks out, and, under such circumstances, with peculiar severity and malignancy. If it be of a fatal character, the flock is rapidly swept away; if not, it becomes chronic, or periodical at frequently recurring intervals. The same remarks apply, in part, to those defects of the outward form which do not at first, from their slowness, attract the notice of the ordinary breeder. They are rapidly increased until, almost before thought of by the owner, they destroy the value of the sheep. That such are the common effects of in-and-in breed-

ing, with such skill as it is ordinarily conducted, all know who have given attention to the subject; and for these reasons the system is looked upon with decided disapprobation and repugnance, as among all kinds of domestic animals, by nine out of ten of the best practical farmers of the Northern States.

How, then, shall the sheep-breeder avoid the effects of in-and-in breeding, and at the same time preserve the character of his flock? He should do so by seeking rams of the *same breed*, and possessing, *as nearly as possible, the characteristics which he wishes to preserve in his own flock*. If the latter rule is neglected—if he draws indiscriminately from all the different families or varieties of a breed—some large and some small—some long and some short-wooled—some medium and some superfine in quality—some tall and some squabby—some crusted over with black gum, some entirely free from it, &c. &c.—breeding will become a mere hotch-potch, and no certain or uniform results can be looked for. So many varieties cannot be fused into one, for a number of generations;* and it not unfrequently happens, as between the different classes of Saxons alluded to by Mr. Spooner,† that certain families can never be successfully amalgamated.

But suppose the breeder has reached no satisfactory standard—that his sheep are deficient in the requisites he desires? If the *desired requisites are characteristic of the breed* he possesses, he is to *adhere to the breed*, and select better animals to improve his own inferior ones. If he has an inferior flock of South-Downs, and wishes to obtain the qualities of the best South Dams, he should seek for the best rams of that breed. But if he wishes to obtain qualities *not characteristic of the breed he possesses*, he must *cross with a breed which does possess them*. If the possessor of South-Downs wishes to convert them into a fine-wooled sheep similar to the Merino, he should cross his flock steadily with Merino rams—constantly increasing the amount of Merino and diminishing the amount of South-Down blood. To effect the same result, he would take the same course with the common sheep of the country, or any other coarse race. There are those who, forgetful that some of the finest varieties now in existence, of several kinds of domestic animals, are the result of *crosses*, bitterly inveigh against the practice of crossing, under any and all circumstances. As frequently conducted, where objects incompatible with each other are sought to be attained—as, for example, an attempt to unite the fleece of a Merino and the carcass of a Leicester, by crosses between those breeds—it is an unqualified absurdity. But under the limitations already laid down, and with the objects specified as legitimate ones, objection to crossing savors, in my judgment, of prejudice the most profound, or quackery the most unvarnished. The cry, “buy full-bloods,” with such men, generally means, “buy *our* full-bloods!” It is neither convenient, nor within the means of every man wishing to start a flock of sheep, to start exclusively with full-bloods. With a few full-bloods to breed rams from, and to *begin* a full-blood flock, the Southern breeder will find it his best policy to purchase the best common sheep of his country, and gradually grade them up with Merino rams. In selecting the ewes, fair size, good shape, and a robust constitution, are the main points—the little difference that exists between the quality of the common sheep’s wool is of no consequence. For their wool they are to look to the Merino; but good form and constitution they can and ought to possess, so as not to entail deep-rooted and entirely *unnecessary* evils on their progeny.

* This occasions the want of uniformity in the Rambouillet flock in France, which was begun by a promiscuous admixture of all the Spanish families.

† Quoted in Letter X.

I have already spoken, in this Letter, incidentally, of the effect on the fleece of the common sheep, by crossing with the Merino and breeding steadily toward the latter; and also of the mutton of this cross, as well as that of the Merino and the English breeds. The result of the cross with the common sheep has been sufficiently described. I would add a few remarks in relation to that with the South-Down and Leicester—both of which I have tried until sufficiently satisfied with the result. Resolved on making an experiment with a Down and Merino cross, a few years since, and finding it difficult to obtain Down ewes* of the proper quality, I obtained a small, compact, exceedingly beautiful, fine and even-fleeced Down ram,† and crossed him with a few large-sized Merino ewes. The half-blood ewes were bred to a Merino ram, and also their female progeny, and so on. The South-Down form and disposition to take on fat manifested itself, to a perceptible extent, in every generation which I bred,‡ and the wool of many of the sheep in the third generation ($\frac{1}{2}$ -blood Merino and $\frac{1}{8}$ -blood Down) was very even, and equal to medium, and some of them to good medium Merino. Their fleeces were lighter than the full-blood Merino, but increased in weight with each succeeding cross back toward the latter. Their mutton of the first, and even the second cross, was of a beautiful flavor—and it retained some of the superiority of South-Down mutton to the last.

I at the same time purchased a few Leicester ewes,|| and, as in the preceding case, taking one cross of the blood, I bred toward the Merino. The mongrels, to the second generation (beyond which I did not breed them) were about midway between the size of the two parent stocks—with wool shorter, but far finer and more compact than the Leicester—their fleeces about the same in weight as in the present stocks§—and altogether they were a showy and profitable sheep, and well calculated to please the mass of farmers. Their fleeces lacked *evenness*—their thighs remaining disproportionately coarse and hairy; and making up my mind that this would always be a tendency of the sheep of this cross, I abandoned them without farther experiment.

In relation to the number of crosses necessary before it is proper to breed from a mongrel *ram*, there is a difference of opinion. Mr. Livingston says :||

“It is now so well established as not even to admit of the smallest doubt that a Merino in the fourth generation, from even the worst-wooled ewes, is in every respect equal to the stock of the sire. No difference is now made in Europe in the choice of a ram, whether he is a full-blood or a fifteen-sixteenths.” “The French agriculturists say that however coarse the fleece of the parent ewe may have been, the progeny in the fourth generation will not show it.”

I am constrained to differ with even this high authority. I admit that the only value of blood or pedigree, in breeding, is to insure the hereditary transmission of the properties of the parent to the offspring. As soon as a mongrel reaches the point where he stamps his characteristics on his progeny, with the same certainty that a full-blood does, he is equally valuable, provided he is, individually, as perfect an animal. But I do not

* To carry out the commonly received principle in breeding, that in crossing between different races, the ram of the smaller should be put to ewe of the larger one.

† This ram, obtained from Francis Rotch, Esq., was got by a prize ram of Mr. Ellman's, and from one of his choicest breeding-ewes, and showed infinitely more style, as well as fineness and evenness of wool, than the common Downs of our country. He was not larger than a large-sized Merino ram.

‡ These I finally put off to save myself the trouble of breeding several kinds of sheep on the same farm. || Descended from the flock of the late Robert Adcock, of Otsego County, N. Y.—considered at the time equal to any flock in the State.

§ That is, about 5 lbs. I have put down the Leicester fleece, in my description of the breed, at 6 lbs., as this is the amount generally claimed for them; but in the few cases brought within my direct knowledge, they have never averaged it. My ewes above alluded to did not, I think, average quite 5 lbs.

¶ Essay on Sheep, pp. 181, 183.

believe that this can be depended upon, with any certainty, in rams of the fourth Merino cross. My only experience in this particular is in the observation of other men's flocks who have bred with high-grade rams.* These have invariably lacked the style and perfection of thorough-bred flocks. The sixth, seventh, or eighth cross might be generally, and the last perhaps almost invariably, as good as pure-blood rams, but I confess I should still prefer to adhere to the latter. Pure blood is a fixed standard, and were every breeder to think himself at liberty to depart from it, in his rams, each one more or less, according to his own judgment or caprice, the whole blood of the country would become adulterated. No man would be authorized to sell a ram of any cross, be it the tenth, or even the twentieth, as a full-blood.

It is all-important for those *commencing* flocks either of full-bloods, or by crossing, to select the choicest rams. A grown ram may be made to serve|| from 100 to 150 ewes in a season. A good Merino ram will, speaking within bounds, add *more* than a pound of wool to the fleece of the dam, on every lamb got by it, from a common-wooled ewe.§ Here is one hundred or one hundred and fifty pounds of wool for the use of a ram for a single season! And every lamb subsequently got by him adds a pound to this amount. Many a ram gets, during his life, 800 or 1,000 lambs! Nor is the extra amount of wool all. He gets from 800 to 1,000 half-blooded sheep, worth double their dams, and ready to be made the basis of another and higher stride in improvement. A good ram, then, is as important, and, it seems to *me*, quite as valuable an animal as a good farm-horse stallion! When the number of a ram's progeny are taken into consideration, and when it is seen over what an immense extent, even in his own direct offspring, his good or bad qualities are to be perpetuated, the folly of that economy which would select an inferior one is sufficiently obvious.

Every one desirous of starting a flock will find it his best economy, where the proper flocks to draw rams from are not near him, to purchase several of the *same breed*, of course, but of *different strains of blood*. Thus, ram No. 2 can be put on the offspring of No. 1, and *vice versa*; No. 3 can be put upon the offspring of both, and both upon the offspring of No. 3. The changes which can be rung on three distinct strains of blood, without in-and-in breeding close enough to be attended with any considerable danger, are innumerable.|| But if these rams of different strains are bought promiscuously, without reference to similarity of characteristics, there may, and probably will be differences between them, and it might require time and skill to give a flock descended from them, a proper uniformity of character. Those who breed rams for sale should be prepared to furnish different strains of blood with the necessary individual and family uniformity.

* I have never knowingly bred with any other ram than a pure-blood, of any stock, or for any purpose.

|| By methods hereafter to be described.

§ That is, if the ewe at 3 years old sheared 3 lbs. of wool, the lamb at the same age will shear 4 lbs. of wool.

¶ The brother and sister are of the *same* blood; the father and daughter, half; the father and grand-daughter, one-fourth; the father and great grand-daughter, one-eighth, and so on. Breeding between animals possessing one-eighth of the same blood, would not be considered very close breeding; and it is not uncouth, in rugged, well-formed families, to breed between those possessing one-fourth of the same blood.

THE HIGHEST FOUNTAIN IN THE WORLD is in the grounds of the Duke of Devonshire, at Chatsworth, where a single jet is thrown up to a height of 267 feet—more than 100 feet higher than Niagara Falls.

THE HOUSEWIFE'S DEPARTMENT.

WE are resolved that, for the future, this department of THE FARMERS' LIBRARY shall be punctually kept up. Every farmer may be supposed to have a wife, and, if not, the sooner he gets one the better for him, if he would thrive and do well—*provided* she is at once docile and spirited, cheerful and resolute, neat, industrious and economical. Without meaning to flatter, and with no inconsiderable opportunities when younger to learn how rural life is conducted in this our republican country, where every man gives his time to party politics we have often had occasion to observe that happiness and success depend quite as much on the wife as the husband—and even more, in so far as they are connected with the care and the manners of children, and all the nameless but important details of in-door management generally.

Have we not in our youthful days—days of alternate smiles and tears—of holidays and school-days—been scolded and coaxed into giving our aid and comfort to the women-folks, in a thousand ways—helping now to wind the yarn, and next to “pick” the cotton? to drive up and count the geese and the turkeys? to *smoke** and to feed the chickens? Have we not been forced, on Saturdays, with a heart full of sadness, and the sense of its unfairness, to forego squirrel-shooting and rabbit-hunting, to carry the “filling-in” to the weaver, and the leather to the shoemaker? Have we not lent a hand in drying peaches, and even in dipping candles? and, if the truth must be told, have we not stolen the water-melon from the patch, and the milky roasting ear from the corn-field—and even the rising cream as it floated, in all its delicious freshness, on “four-and-twenty” milk-pans “all in a row?” Not so much, be it confessed, because some of them might not have been easier come at in an honest way; but, then, *we* thought they all tasted *so much sweeter*!—for be it known that, in all these boyish peccadilloes, we had our confederates, both white and black—(blessed be their names! for most of them have gone beyond that bourne “whence no traveler returns.”) And is it not wonderful how company *does* embolden us in wrong-doing? Even whole nations, feeling might and forgetting right, have been known sometimes to perpetrate robbery and murder, for which any individual among them would be quickly swung up by the neck? But we are becoming grave when we only meant a jocose reference to youthful pastimes and occupations, to show that personal experience gives us a right to pretend to some knowledge of rural life and its affairs; and the more so, since there are some who would fain look on us as interlopers in the very field of inquiry and observation to which we *have* chosen to fly all our lives, for occupation and amusement, whenever we could break or slip the bridle, and escape from school or from the labors of office, and the more artificial scenes and circles of the town.

We shall not, however, ask the judgment of *men* upon what we shall every month supply for the entertainment and welfare of the thrifty housewife and the anxious mother. When the boy returns from the neighboring Post-Office, the chance is that the gentleman of the house will take the post-bag, and, first of all, cull from it *his* party paper, with a foregone conclusion that whatever

* An effectual process for curing the “gapes.”

he there shall find is gospel, to be swallowed and followed, even though it may load his country with debt and dishonor. We speak, of course, of no particular party. Well, good lady, let him take his hebdomadal dose of politics—which habit has made as necessary as his tobacco—while you, in your habitual and appropriate deference to his better judgment in such things, ask for THE FARMERS' LIBRARY AND MONTHLY JOURNAL; and after reading, as you find it worthy, call to your own department the attention of your dear daughters, single or married. We can promise you, at least, that you shall meet with nothing there that does not inculcate the practice of all the womanly domestic and Christian virtues—industry, economy, and attention to cleanliness and cultivation of body and of mind—such virtues, in a word, as have made illustrious the names of a Comtesse de la Fayette and a Madame Roland, a Mrs. General Greene or a Mrs. Hill.*

For this month we take, with other items, what we find at hand in the "*Quarterly Journal of Agriculture and Science*," being a familiar story of "MR. DUROPUS AND FAMILY." The melancholy fate of poor Duropus is a very natural representation of that of many honest farmers who are brought to ruin by the improvidence of their wives and families; while, truth to tell, a yet greater number are broken up by their own laziness and contaminating associations. It may safely be affirmed that the extravagance of wives is not unfrequently occasioned by *want of confidence and candor* on the part of the husband—as if the blood of Portia were extinct, and as if American might not, as well as Grecian and Roman matrons, be trusted, even unto death. Alas! have not too many of them, as well in the time of our Revolution as since, had occasion to say and to realize the sad presentiment of Andromache:

"Be careful, Hector! for with thee my all—
My father, mother, brother, husband fall!"

From a false, though it be an amiable pride, and unwillingness to deny their family every gratification, husbands would conceal their inability and embarrassments, until too late to retrieve their affairs; and only when on the very verge of inevitable ruin, is the dreadful disclosure made—accompanied, perhaps, with lamenting extravagances which an earlier and better knowledge of his condition would have prompted the wife to avoid at every sacrifice; for who is she, worthy of the sacred office of wife and mother, who is not ready to unite with her husband in every struggle and self-denial, to preserve for him and her family that greatest of all earthly blessings, *independence*! however humble the condition and the sphere of its enjoyment?

* In no spirit of invidious preference do we venture to add the name of this native lady of our own State, whom we remember as a little school-girl. Reared with tenderness, in the enjoyment of all that easy fortune and parental fondness could supply—married young, and widowed in early life, she was left with a family of sons to rear and educate, and a large estate and complicated affairs to manage. With a fortitude and perseverance which has characterized so many of her countrywomen, she brought up her boys in a high sense of honor and obligation to preserve the purity of their name, and handed them over their estates unembarrassed and improved. Have we not a right to draw the names of such women from retirement and in this department proclaim their examples for the emulation of their sex? Nay more: is it not a scandal to our country that some man duly accomplished and imbued with the true spirit for the task, has not sketched for American Biography the lives of American women, of whom our Revolutionary and other times could boast so many conspicuous models of conjugal devotion, of enlarged philanthropy and heroic resolution under the most trying exigencies of fortune? It shall be our pleasing duty to preserve such sketches in the Housewife's Department of THE FARMERS' LIBRARY, when offered. Where the materials are so abundant, shall the chivalry be wanting to supply them?

MR. DUROPUS AND FAMILY.

CHAPTER I.

ONE Friday evening, as Mr. Duropus came in from the field, he found his house in especial fine order, and all the labors with which he was wont to close the day anticipated.—This was certainly a very pleasant fact, and not a very unusual one in the history of his experience. It was commonly followed by a demand, on the part of Mrs. Duropus, upon a leathern purse which lay in a small chest, under the bed, in which (the purse, not the bed) was deposited gold, silver, and bank-notes, received in exchange for beef, pork, hay, oats, potatoes, apples, and other commodities produced by the farm of sixty acres, owned and cultivated by Mr. Duropus.

When the supper table was removed, and the girls had gone over to the next neighbor's, and Mrs. Duropus had lighted her candle and threaded her needle, (which last feat was not performed till after divers nippings of the thread with her eye-teeth, and many fears that Mr. Duropus would repeat a remark, not at all pleasant, "you had better take your spectacles,") and had commenced repairing a rent in her husband's coat. When all these important things had taken place, Mrs. Duropus began to expatiate on the prosperity and fine appearance of their neighbors, the Dashiels. "Only to think," said she, looking up from her work by way of emphasis, "how well they have got along in the world. Two or three years ago, when they came into the village, they had nothing at all, and now there is not a family in the place that dress better; I do n't know of a single family that has got along as well as they have."

"Mr. Hardy's family have got along better, to my notion," said Mr. Duropus.

"According to your notion; but your notions are different from those of most persons."

"When Hardy bought that run-down farm, four years ago, he paid two hundred dollars down, and gave a mortgage for eight hundred. Since then he has managed to pay one hundred and twenty-five dollars a year, besides the interest, and to make the farm worth double what it was when he took it. He will soon be out of debt, if he lives, and be the owner of a fine farm."

"How has he done it? He has n't allowed his family the comforts of life."

"I think you hardly do right to say that.—The house is about the neatest one I have been in, and the children look as plump as partridges."

"I presume they have enough to eat. As to the house, I suppose you have never been in any room but the kitchen. Their parlor has nothing in it but the bare floor and walls, a table and a few old chairs."

"I can't say how that may be; I was in the room they live in, and, if anything, it was more comfortable than this one."

"There is no need of our living in this room," Mrs. Duropus was tempted to say—

but, remembering the object in view, she suppressed the remark. The good lady, together with her three daughters, had simultaneously conceived the idea that it was ungentle to live in the kitchen. Hence, when in company, they spoke of it as a dim and shadowy land, into which they rarely made excursions. They were too well acquainted with Mr. Duropus's notions, to make any attempt to dislodge him from the time-honored corner, or to make their own residence in the 'front room' other than theoretical.

"I presume," continued Mr. Duropus, after a brief interval of silence, "that Mr. Hardy feels that he can't afford to furnish a room which is so little used as a parlor is, while he is in debt, and has so many improvements to make on the farm."

"That is always the way with you men. There are so many improvements to be made on the farm that the house can never be made decent inside. Every old barn and rail-fence and ditch must be fixed first."

It was plain that Mrs. Duropus was losing sight of the object for which the house was put in extra order, and losing something of the pleasantness of her voice; she perceived it, and made an effort to repair the error, but her feelings were too much interested in the topic we have mentioned, to leave it without a few more remarks. She moreover hoped she might give them a bearing which might tell on her as yet secret purpose.

"If he has some excuse for not furnishing the house, he has no excuse for letting his girls go dressed as they do."

"I do n't know much about such things, but they always look very nice at home and abroad."

"It behooves those who have only one or two frocks to keep them clean."

"I should think it would be harder work to do so, and therefore they deserve the more credit for it."

"I do n't think their father deserves much credit for laying out so much on his farm, and making his daughters do with only a dress or two."

"I do n't know how many they have, I'm sure; they always appear well dressed at meeting."

"They have worn the same dresses at meeting, and everywhere else they have been, for a year; and will do so, I suppose, a year longer."

"It may be, and, if they are kept nice, I do n't see why they should n't."

"I do n't suppose *you* do, but other folks do; I reckon you would like to have the girls wear the same dresses, Sabbath after Sabbath, for a year."

"I should stand a better chance to know them when I meet them than I do now. The other day, as I was going to neighbor Hardy's, I passed a smart-looking young woman with a good many ribbons flying. I thought she noticed me as I passed, though I did n't know her."

"Where has Phebe Maria been?" said one of the girls.

"She has n't been anywhere to-day, as far as I know," said I.

"You must have met her, for she just went by here."

"I remember I passed a young woman, but I did n't mind who it was," said I.

"I think it is pretty well," said Mrs. Hardy, "if a father do n't know his own daughter." They had quite a laugh about it.

"I suppose you joined in with them," said Mrs. Duropus.

"I rather think I did laugh some."

"I do wish you would n't run down your own children, or, what is just as bad, let other folks do it. The Hardys need not say anything. I do n't think that one of them has had a new thing for six months past."

"I do n't believe they have," said Mr. Duropus, with a quiet smile; "you would certainly have known it if they had; but do you think they are less respected on that account?"

"If parents wish to have their children be anybody, they must have them do as other folks do."

"I rather guess, mother, that neighbor Hardy's girls will make out as well as any of the girls in the place, after all."

"They may, according to your ideas of making out well. They may marry men like their father, whose hearts are set on improving their farms, instead of making their families comfortable."

Mr. D. made no reply to this remark. A cloud passed over his good-humored countenance. What were his thoughts as he sat gazing at the place where, in winter, the fire was wont to glow? Was it strange that the phrase, "they may marry men like their father," struck him unpleasantly? Would it be a calamity to them if his own daughters should marry men like their father? Did their mother regret that she was wedded to one whose notions differed so much from the new ones she had adopted? He had toiled under the scorching summer sun, and amid the storms of winter, to gain the means of rendering his family comfortable. Was this unappreciated? True, Hardy was the man spoken of, but his own views and practice had not differed materially from those of his neighbor. But thoughts like these were soon dismissed. "She has been," thought he, "a faithful and loving wife; when we began the world with nothing, she did her full share of the labor; true, now, some of the notions which are filling everybody's heads, in these days, have got into hers; but she will get over them, when she comes to think more about them." He felt pained at the thoughts which he had indulged. By way of atoning for the same, he determined to grant the favor, whatever it might be, which he saw his wife was preparing to ask at the commencement of their conversation. He rubbed his face, and changed his position, and talked on vari-

ous topics so cheerfully and pleasantly that Mrs. Duropus was emboldened to prefer her request.

Mr. Mason, a merchant in the village, had just returned from the city with a fresh supply of goods. In the fullness of his benevolence, he had informed Mrs. D. that he had procured certain dress patterns, with especial reference to the adornment of her daughters; and that, in expectation that she would purchase the same, they should be withheld from the public eye till noon the next day. Mrs. D. was authorized by her relenting husband to make the purchase on the following morning.

CHAPTER II.

Let us now look in at Mr. Hardy's. It was about ten o'clock in the morning; Mrs. Hardy and her two daughters, Mary and Jane, were busily employed in the labors appropriate to their calling. Occasionally the sweet voices of the girls might be heard in song, and then in an affectionate dispute with their mother relative to the division of labor. A knock was heard at the front door. Instead of fleeing in various directions, and slipping on dresses, whose rebellious folds clearly indicate the suddenness of their appropriation, Jane continued at her work, and Mary went to the door. She found there Miss Phebe Maria Duropus, and a young gentleman (the brother of the minister) who was spending his vacation in the village.

"Good morning," said Mary, with a slight want of composure at the sight of the stranger—"walk in!"

"We were making a few morning calls," said Miss Phebe, after she had introduced Mr. Foster, "but perhaps you are engaged."—This was spoken while she was still standing before the door.

"We are not more engaged than usual; we are always happy to see our friends. Come in!" said Mary.

They entered, and Miss Phebe seated herself on the edge of a chair; whether through fear of soiling her new dress, or because she thought it more genteel, is not known.

"You are very industrious," said Miss Phebe Maria, "I wish I were so."

"We are obliged to be; so we do n't deserve any credit for it."

Jane came in without waiting to be inquired for; and after a very few moments spent in labored conversation, and after amusing herself by tapping on the bare floor with her sun-screen, and then becoming very ostentatiously conscious of the impropriety of the act, Miss Phebe Maria rose, saying that they must not hinder their friends from their work, and bade them good morning. Mr. Foster bade them good morning with rather more politeness and respect than was quite agreeable to Phebe Maria.

"Phebe seems to be very friendly, all at once," said Jane with a smile, after they had resumed their operations in the kitchen.

"There was n't too much friendship in her call to-day," said Mary, slightly vexed.

"Don't be harsh in your judgment, dear," said Mrs. Hardy.

"It is n't a judgment, but a fact. She brought him here to let him see that our house was not as well furnished as hers."

"She took unnecessary trouble, then," said Jane; "she might have told him about it."

"I suppose she thought that seeing is believing," said Mary. "If he is a sensible man, I do n't think she has gained much by bringing him here."

"Let us talk about something else, dears," said Mrs. Hardy, and the suggestion was cheerfully adopted.

Not long after this call, Mr. Foster presented himself at the door, unattended by Phebe Maria. "Are the young ladies at home?" said he to Mrs. H., who came to the door.

"Yes, sir—walk in! They are at home, and will be ready to see you in a few minutes. They are now helping their father milk the cows, or rather he is helping them. Mr. Hardy has so much to do that, when we can get the cows home soon enough, we try to have them milked before he comes; that is, the girls do, for they won't let me go out of the house."

"You have n't them under very good government, then," said Mr. Foster, smiling.

"It is n't the fashion now, you know. The fashion now is for the young folks to rule and the old ones to obey. However, I can't complain of my girls—they try to do everything they can for their parents: only they won't let me do as much as I wish to sometimes.—I do n't like to see them do it all."

The girls had new finished straining the milk, and, as the labors of the day were over, some slight changes were made in their dress, and they came in and passed the evening with Mr. Foster. He had no such horror of uncarpeted floors, or of industrious girls, as to prevent his staying till the village bell "told the hour for retiring."

It appeared that one of Mr. Foster's uncles, with whom he spent a part of his time, was well acquainted with Mr. Hardy, and highly appreciated his character. He had requested his nephew to make his acquaintance, during his stay in the village. Perhaps he thought he was fulfilling that request by becoming acquainted with the daughters, for the nine o'clock bell rung before he inquired for the father, and then he had gone to bed. So it was plain that it would be necessary for him to call again. He did so, and the necessity for repetition seemed to be increased, inasmuch that Miss Phebe Maria, on one occasion, said that, if any one wished to find Mr. Foster, they must look for him in Mr. Hardy's kitchen.

CHAPTER III.

"Mr. Duropus, our girls must have more things. It don't signify; they can't be anybody unless they do."

"What is wanting now?" said Mr. Duro-

pus, who looked thinner and older than when we saw him last.

"We must have an ingrain carpet, and some mahogany chairs, and a looking-glass: everybody has them now. Even Mr. Hardy has got his girls a carpet."

"He can afford to do so, but I can't."

"What is the reason? Your farm is as large again as his."

"And my debts are as large again, and more too, for I don't know as he owes a cent in the world. When he owed eight hundred dollars, I didn't owe much if anything; and now he is free from debt, and I have just as much as I can do to pay the interest, and I shan't be able to do that long at the rate we are going on."

"I do n't see how that can be. We have not bought anything for the girls but what was necessary. They have only had what other folks have."

"I do n't know how that may be; they have had more than I can afford. I ought to have refused and put my foot down at the first of it, and got only what I could afford to get."

Mrs. D. was silent. She was not given to profound reflection, and hence had never thought what effect her demands on her husband's purse might have in the end. She was sorry if he was embarrassed; and yet she could not believe it. The girls had had next to nothing. Old-fashioned folks were prone to exaggerate, where new things were concerned. He could surely afford the carpet and chairs. She would do without something herself. The girls would be married soon, that is, if they had suitable things to attract husbands with. With such thoughts did she fortify himself in the resolution to persevere in her application; and who ever heard of a persevering wife who was denied.

The money was raised by a mortgage on his stock, and the carpet, chairs, and glass were purchased. Mr. Duropus excused himself for yielding, by saying to himself, "I shall have no peace till I do."

About two years after the above-mentioned purchase, Mr. Hardy came one day to the field in which Mr. Duropus was hard at work. "Good morning, neighbor," said he, "I have noticed for some time that you have n't looked well. You work too hard; you can't stand it."

"That is n't it; I'm in debt, and expect to have all my stock sold before long."

"I concluded you must be in debt some—and—I—was rather surprised at it, too."

"That is, you thought I had too much sense to give way to the foolish ways that are ruining half the farmers in the country."

"Yes, that is about it, seeing you have said it yourself."

"Well, you see, I got into it by little and little, and once in, it is hard swimming against the tide. I shall never get out of it. I shall see the last of my farm if I live many years longer."

"You must get out of it; your duty to your family requires it."

"They have got the upper hand now; if you could persuade them to make a change, I might save myself."

"You certainly can persuade them, if you tell them just how you are situated."

"I have told them many a time, and there is a crying-spell and a reform for a day or two, and then the old story over again."

Mr. Hardy felt too deep an interest in the welfare of his neighbor to leave matters in their present state. He inquired into the amount of his debt, and proposed several ways by which he might extricate himself.

"What good would it do? I should get right in again."

"Not if you will just make up your mind

to buy nothing except what you can afford to buy. I have five hundred dollars that I had thought of giving to my son-in-law, Foster, to get him a library, but he can do without for a while. I will give you that for the wood-lot and pasture adjoining, and pay off the mortgage bonds; and then you will have more than sixty acres and free from debt, and if you can't keep out then, why I do n't know what can be done for you."

"There can't be anything done for me, unless I do for myself. I'll take up with your offer, and will follow your advice to the letter, come what may. Let us go and draw writings. I want a good night's sleep, a thing that I have n't had for months, and shan't have till I am out of debt."

LYED HOMINY.—Every housewife knows that there are *two* kinds of hominy, the "small" and the "great" hominy; but all do not know that there is a *third*, which, though less known, is the easiest prepared, and in Missouri, where it is much used and esteemed, is called Lyed Hominy, for a reason that will be obvious. It is prepared, says a Missouri housewife, by boiling the white field-corn in *ashes* and water until the husk or skin of the grain is loosened, which will happen in a few minutes, and attention must be paid that it remain not too long in the ashes, else it will taste of the lye. So soon as the husk is loosened, it must be washed and rubbed through the hands, in cold water, until the grain is cleansed from the ashes and husk or bran. It may then be dried, to be used at any time, or boiled immediately, if wanted. When wanted to be cooked for the table, it must be scalded and then put to boil in plenty of water, observing always to keep sufficient hot water to throw in as the first boils down. The grain bursts into a white ball, and becomes soft when sufficiently done. This is the manner of boiling to eat it, either warm or cold, with milk, or cream if to be had, even fresh Alderney cream! This preparation of Indian corn is also used in the West, by the Indians and Creole boatmen, who prefer it to anything else in a *soup*, which they prepare by putting the lyed corn to boil, with a piece of beef or pork, leaving the water in, which makes the soup. In the other case of the lyed *homing*, the grain, when done, is separated from the water. There can be no doubt that a bowl of this lyed hominy and fresh milk would have been as keenly realized by old Rough and Ready, after the battle of *Buena Vista*, as "a dish of nice strawberries smothered in cream" by us who live at home at ease, and read with admiration of his stoic fortitude and, with a too sanguinary *gout*, the accounts of all his hard-fought battles.

TO HAVE GOOD COFFEE.—Few things so often test the skill and attention of the housewife as the *quality of her coffee*. The proverbial excellence of French coffee is owing to its being roasted (or scorched) *slowly* over or near a moderate fire, thus concentrating the aroma or essential oil, instead of rapidly burning the berries, thereby evaporating its high flavor. To make good coffee, when it is boiled, and not percolated through a biggin,

"it should boil up once only, and then it should be suffered to stew [simmer] in a close vessel or pot on the hob—the longer the better—until wanted, when it will seldom require fining; for which purpose, however, a little pounded isinglass is the best. In France, and most other countries, the berries are mostly fresh scorched or roasted, just before being required, which, in nearly all families, is performed in the frying-pan (rarely in a roasting machine) over a slow fire of charcoal, the berries being kept moist by the addition of a little fresh butter or lard, which prevents all possibility of burning. They are turned out, when finished, on flannel, and rolled up closely till cold."

Then it should be made *very strong*, and drank, half coffee, half cream or boiled milk. Some ladies barely *color the water*. That may do for children, but not for those who know "what's what," and that's what the great Pinkney said General Ridgely knew, when he wanted to praise him and his knowledge of what was *comme il faut*.

TRANSACTIONS OF THE MASS. HORTICULT. SOCIETY.

FRENCH METHOD OF PRESERVING FRUITS.

"Civilization bids us mingle the ornamental with the useful; and the pleasures of the eye, although not so indispensable, are of a much more refined nature than those of the mouth."

If any one doubt the truth of this sentiment, so well expressed in these "Transactions," let him but ask himself where his lady-love would be seen with greatest force of attraction—tending her tulips and training honeysuckles, or munching the most aromatic and delicious fruit that ever grew? But our thanks are due, in the first place, to the distinguished President of the Society, for a copy of this specimen of their Transactions—published, as all such works should be, in a style worthy of the beautiful art to which they are dedicated. Beautiful as this volume is, however, it seems to have not yet satisfied the just pride of the Society; and, in truth, in respect of the chromolithing process employed in the exhibition of the flowers and fruits with which the work is embellished, although the best display of that process which has fallen under our notice, it is not in its present state to be relied on, to realize the design of those who arrange these Transactions, and who seem to judge that nothing has been well done which can be done any better. Hence the Trustees intimate a determination not only to bring out their subsequent volumes in a superior style, but that the plates now given shall be reproduced, with every practicable improvement.

Referring first to what it has ever been our disposition to hold up for example in all such cases, we have to notice the fine, liberal spirit which has ever prompted the members of this Institution, both as a body and individually, to stimulate and encourage the formation and the success of all such associations in other parts of the country—rightly judging, contrary to the feeling and practice of some similar Associations, that there are cases in which a common public good is best promoted by honorable and extended rivalry, and the wide diffusion of appropriate knowledge.

After arguing that Floriculture may eventually become an object as well of profit as of amusement, and suggesting the patronage of it as a suitable object to attract the surplus wealth of the tasteful and opulent, a striking fact is adduced to show the commercial value into which the products of Floriculture may be made to grow, as in the case of the two exquisite seedling Camellias—the "CAMELLIA WILDERII," and the "CAMELLIA MRS. ABBY WILDER,"—the figures of which adorn the volume before us. These were obtained in the conservatory of the President, M. P. WILDER, Esq., by the persevering application of the art of hybridization laid down by HERBERT. Mr. W. sold his stock of these two seedlings to J. L. L. F. Warren, for \$1,000, and Mr. Warren has since nearly tripled that amount for them in Europe. But we have no room for more remarks, even if they were needed to hold up the enlightened management and choice fruits of this Association to the emulation of men of taste and means throughout the country. The love of Horticulture, with which sordid ideas of gain are not usually associated, may not be so easily imbibed in a country where the "almighty dollar," as Irving calls it, is the object of universal and eager

pursuit; yet to all reflecting minds it holds forth this inducement—that, as stated in this volume, “examples are exceedingly rare of men, once engaged in Floriculture, ever giving it up but with their latest breath.” While it offers elegant recreation to the man of wealth, to the poorest it is not forbidden.

In making room for the practical matter which follows, to the exclusion of as much already prepared for this number, we propose to show to our friends of this intellectual, prosperous Association, that in our case their kindness has not been lost on the wayside, at the same time that we put in for them a claim to the gratitude of our readers.

“The following simple statement of the number and varieties of Pears contributed at the last four annual exhibitions will confirm the foregoing impression:

	1843.	1844.	1845.	1846.
From M. P. Wilder, Pres't, about	91	102	120	154
Messrs. Winship.....	47	50		40
Pomolog' Garden, Salem.....	160	159	240	176
Samuel Walker.....	13		36	45
Ebenezer Wight.....	21			
Otis Johnson.....	32	24	35	41
J. L. L. F. Warren.....	34			34
J. S. Cabot.....		43	60	74
Josiah Lovett, 2d.....		15	68	23
Hovey & Co.....			17	18

The beauty and qualities of these Pears cannot be represented by numbers, but those who saw and tasted them can bear witness to their great excellence in these points, and the large number of sorts will show the pains that have been taken to put all on trial for the purpose of making selections best suited to this climate.

The perseverance in cultivating many varieties, of high character elsewhere, which at first do not appear to thrive in this section of the country, deserves notice, as it has been rewarded in several instances by successful acclimation, and has given rise to the decision that Pears should not be rejected without a fair trial of four or five successive seasons.

Equally interesting statements respecting Apples, Grapes, Plums, &c., might be drawn up, but this is sufficient for present purpose.

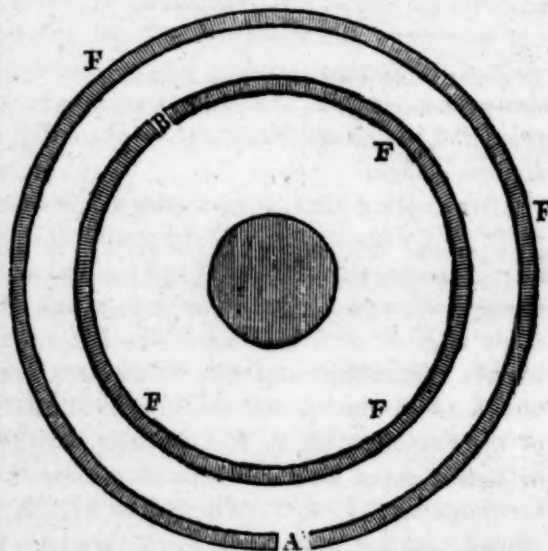
As the experience acquired in the cultivation of these must of course be extensive, its wide dissemination is certainly of great importance; and the same is true of another object, that is, the method of keeping Fruit in the most perfect state throughout the winter, particularly apples and pears.

Mr. Victor Paquet, of Paris, published a little work on this subject in 1844. He gives an extract of the printed award of the Royal Society of Horticulture of Paris, decreeing a medal to him; this states that M. Paquet had on the 12th of June exhibited one hundred pears and apples, and that those the judges tasted had perfectly preserved not only their beauty, freshness and flavor, but even their perfume. In one year he preserved 17,000 apples and 11,000 pears: the finest of these latter fetch sometimes 3 fr. (60 cts.) each in the Paris market.

(570)

His method, although at first expensive, deserves to be known. His fruit-house is a circular building expressly for this purpose, with an outer and inner wall, as will be seen on reference to the figure below. The height and thickness of the walls, as well as the dimensions of the house, are with him arbitrary. The distance between the two walls is about three feet six inches; both have windows, as he thinks a diffused light preferable to entire darkness. The inner room is, of course, the depository of the fruit, and the object here is to attain a constant temperature of about 50° Fahr.; as low as 39° would not be injurious, but 66° to 73° destructive. The intervention of fire-heat he considers very prejudicial.

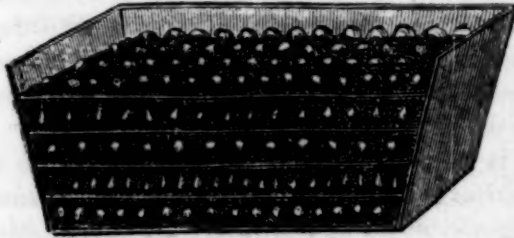
He has a number of tight wooden boxes made with drawers, of oak—which wood he prefers, as being easier to be cleaned from the remains of any fruit which might decay; softer woods allow the moisture and seeds of fungi, causing decay, to sink into their open pores, where they remain and vegetate another season. In these drawers the fruits are placed, with small intervals between each, on a slight bed, one-sixth of an inch thick, of



GROUND PLAN. A, B, doors; F, windows.

saw-dust (not pine, which would communicate an unpleasant flavor), highly dried in a baker's oven, eight parts, and one part of very dry pulverized charcoal; and with this mixture the interstices between the fruits are

filled to about two-thirds of their height, leaving one-third exposed. M. Paquet discusses at some length the various substances generally used to envelop fruits, such as moss, cotton, paper, &c., and finally gives the preference to the mixture mentioned, objecting totally to wrapping each in paper.



FORM OF THE BOXES.

Previous, however, to depositing in the fruit-house, many precautions should be taken; the fruit should be gathered with the greatest care—the slightest bruise or pinch would be fatal; the fairest and finest specimens must be selected. It should be gathered about ten days before it is ripe, but must have attained its full size; after gathering, should be left in an open, airy situation for about fifteen days, to sweat, and on no account be wiped—previous to its final deposition in the boxes in the fruit-house. With all this care some will decay; the boxes should, therefore, be occasionally looked over, and those showing the slightest symptoms of perishing be immediately removed.

Mr. Paquet's small publication contains many valuable hints on the preservation of fruit on the trees; on the acceleration and retardation of the period of ripening, and on the artificial means of increasing the beauty and coloring of Fruit.

Our winter and summer climate, however, differs so much from that of Paris, that judgment must guide our operations here; to follow implicitly all his ideas might lead us into error.

The writer has received a communication from an American friend in France, who is enthusiastically devoted to rural pursuits, which states that their Apples in France are abundant and good, and many kinds keep well, although he has eaten none which he

thinks equal to those here; but he adds:—'Their Pears are truly magnificent, and their St. Germain's are even now (April, 1847) in eating; Fruit, however, in general, is enormously dear—I paid yesterday four cents for an ordinary Pear, and a franc, or twenty cents, was the price demanded for one of superior size and quality. The markets for Flowers are held here several days in a week, and certainly are extremely beautiful. I attended, the other day, a magnificent exhibition of Flowers and Greenhouse Plants, made for the benefit of the poor. The display was certainly most brilliant.'

It is presumed that these Transactions may be rendered of equal value to the agriculturist as to the horticulturist; for the Fruits on which they will chiefly treat and offer information are those the cultivation of which employs a portion, sometimes a large portion, of many well-conducted farms.

Of the number of barrels of Apples consumed at home, no approximative calculation can be ventured on, but every one is aware that it must be enormous; and even the export of this fruit is rising into importance as a trade—from Boston alone, in 1845, 10,229 barrels, and in 1846, 11,092 barrels, were exported. That the production has not yet overwhelmed the consumption is evident from the fact that prices rather tend upward than downward, while the supply of the finest sorts by no means equals the demand. How necessary, then, that the public should have some authentic source to look to for information respecting the cultivation of these fruits; and how imperative on the Massachusetts Horticultural Society, under the weight of the liberal patronage bestowed on it, to become that source.

The commercial value of the Pear, although it has not yet attained the same importance as that of the Apple, has lately received a vast impulse; nor can there be the least doubt, when our Pear orchards shall have been sufficiently enlarged, and the method of keeping this fruit have improved, that a great demand for export to the West Indies and South America will arise, and a valuable addition to our trade be developed."

While the caution against difference of climate cannot be too strongly impressed, there can yet be no doubt that the cultivation of fruit, as an object of commercial operations, is to form a not unimportant item in our machinery of exchanges, of all of which the land is the basis. The love for fruit, and the habit of consuming it, is one of those which grows by what it feeds on. When Dr. Underhill commenced the sale of grapes on a small scale, the demand was reluctant and limited: now it is not easy to supply it; and he, too, has had the good sense and feeling to diffuse, all in his power, a knowledge of the means of conducting this attractive branch of Horticulture. Less than forty years ago, as we are told by Gen. Dearborn, there was scarcely a nursery in New-England worthy of the name, while now there are many that contain nearly as great a variety of

fruit trees as the most extensive in England and France. Let us lay claim, *en passant*, to the fact of having added one to their stock—the *Shepherdia* or “Buffalo Berry”—received in Baltimore, while Editor of the *American Farmer*, from an officer in the West, and sent, many years ago, to Mr. Winship. We have often stated to our friends in the South, who are not ashamed of sending to northern nurseries for the commonest fruit trees, that in New-England, now, nothing is more common throughout the country than for nurseries of common fruit trees to be sold by the farmer to the regular nurseryman, to be by him budded and grafted, with one or two hundred per cent. added to its value, and then sold a second time to the provident farmer in the South!

If the habit of consuming fruit, in its natural and prepared state, is thus increasing in the North, how much faster yet would it increase, under the same means of encouragement and indulgence, in the South, where the climate itself demands a larger proportion of vegetable over animal food! But we have exhausted our borrowed space for a subject which, besides its intrinsic merit, has for us its peculiar attraction, and to which we shall again and again recur—using this occasion no farther than to add that success might well be predicated of an Association which came into existence under the Presidency of General H. A. S. DEARBORN, whose elegant and various acquirements and cultivated taste have been so often and effectually displayed for the benefit of the kindred pursuits, Agriculture and Horticulture, to which *THE FARMERS' LIBRARY* is dedicated.

CATCH THE SCOUNDREL!—The Salem Observer says that some sacrilegious hound has robbed the old and time-worn Endicott Pear Tree, the present season, of its crop of fruit.

Mr. Editor: The extract above reminds me of a paragraph in The Tribune of the 5th of May last, in which it is stated that the Stuyvesant Pear Tree, at the corner of Third-avenue and Thirteenth-street, which was brought from Holland in 1647—two centuries ago—“is, no doubt, the most ancient fruit tree on this continent;” which is undoubtedly erroneous—for, ancient and venerable as this honored memorial of bygone days really is, both tradition and the records indicate that it is not the *oldest* of its kind among us.

The Endicott Pear Tree, alluded to above, it is believed was brought from England in 1630, and is *known* to have been set out by Gov. Endicott, in his “orchard” in Salem, now Danvers, Mass., in 1632; and, consequently, is at least 15 years older than the Stuyvesant Tree. It annually bears its share of fruit, although the hand of Time has made great havoc with its fair proportions.

THE CUCA.—Prescott, in his “Conquest of Peru,” says that this is a shrub which grows to the height of a man. The leaves when gathered are dried in the sun, and, being mixed with a little lime, form a preparation for chewing, much like the betel-leaf of the East. With a small supply of this cuca in his pouch, and a handful of roasted maize, the Peruvian Indian of our time performs his wearisome journeys, day after day, without fatigue, or, at least, without complaint. Even food the most invigorating is less grateful to him than his loved narcotic. Under the Incas it is said to have been exclusively reserved for the noble orders. If so, the people gained one luxury by the Conquest; and, after that period, it was so extensively used by them, that this article constituted a most important item of the colonial revenue of Spain. Yet, with the soothing charms of an opiate, this weed, so much vaunted by the natives, when used to excess, is said to be attended with all the mischievous effects of habitual intoxication.



FIVE YEAR OLD AYRSHIRE COW.

New York Published by Greeley & McEwen, for the Farmers Library, J. S. SKINNER Edit.

G. R. H. Engraved with N. York.

AYRSHIRE CATTLE;

WITH A PORTRAIT OF A FOUR-YEAR-OLD COW.

IN what country are farmers more interested than in ours, in being well informed as to the qualities of different races of cattle, and in breeding them carefully with a view to the preservation and improvement of such as best comport with their particular objects and interests? Some there are whose profit from cattle consists almost exclusively in the cheapest production of beef—some who rely for income on their yield of milk, or butter, or cheese, while some, and much the greatest number, who do much of their farm team-labor with oxen, and who would combine with that object milk, and butter, and beef, to a certain extent. The farmer, then, as do all sensible, reflecting men engaged in any other business, should endeavor, by inquiry and by observation, to inform himself how, and by the adoption of what breed, his *chief purposes may be best accomplished*.

If the merchant orders a ship to be built, he well knows that attention must be paid, not merely to the qualities of her timbers, but to her model: if he wants her to make quick voyages, with perishable cargoes, to run the gauntlet through a blockading squadron, or for the barbarous uses of privateering and war, he explains all to his ship carpenter, and he frames her accordingly, what they call clipper-built, of a model that, as Admiral Cockburn once said to us, about the Baltimore Clippers, in the time of the War, "Why, Sir, your clippers take the first of a nor'-wester and, running down in the night, *whiz* by us like wild ducks, before we have time to cut our cables." If, on the other hand, he wants a ship to carry a great freight, she, too, is modeled after that intent. In all other pursuits except farming, *mind is exercised*. First, the end is considered; then the most appropriate and economical means. There is a certain plan marked out, and the best means of fulfilling it well digested and perseveringly adhered to. Now is this the habit, this the precaution of American farmers generally in breeding their domestic animals? Far, very far from it: with them, commonly, a cow is a cow, a sheep a sheep, and a hog a hog—whereas, do not the breed and qualities of his domestic animals concern the farmer in the degree that the manufacturer is interested in the structure of his machinery, and the merchant in the model of his ship, and the tanner in the qualities of his bark? If, then, there be any use in advising, we would recommend all to consider, not superficially, but anxiously, and with all the lights they can collect, the primary objects which their position invites them to keep in view, and making these the chief, while others are the subordinate considerations, never buy, or turn out a breeding animal, without reference to these objects. A farmer should be as well acquainted with the breeding and promises of his young stock, as the merchant with his stock in trade—his bills payable and his bills receivable—or the smith with the nature of his iron or his coal.

In this country, at present, we have of the imported and popular foreign breeds, the Ayrshire, the Devon, the Short-Horn, the Alderney, and the Hereford, with grades of them all. Some of these we have ourselves imported, others we have owned, many years ago; and with the best specimens of all profess to be familiar,

by extensive reading and personal observation. Without the shadow of motive for partiality, we shall relate, from time to time, as we can find room, what is said, what we know, and what we believe of them all. If in our impressions we are mistaken, all we have to say is, that "to err is human." Yes, we have this to add, that, far from presuming to censure, or complain of any difference of judgment, we are always grateful for the expression of opposing opinions by men who think with freedom, and who, like gentlemen, speak accordingly. And first of the AYRSHIRE. We have not room or time to refer to the different importations that have been made. We saw those which were imported some years since by the late Allen I. Davie, selected by himself in Scotland, and landed in Baltimore. They passed into the hands of JOHN RIDGELY, Esq., and were sent to the celebrated Hampton estate—where, as we have understood, they have given great satisfaction as dairy stock. He not being now in the country, it is not in our power to ascertain more particularly; and besides, he belongs to that category of gentlemen farmers who, though always ready to welcome a friend to the enjoyment of his elegant and ample hospitality, and to give, personally, every information he possesses, does not find his greatest pleasure in a minute survey of his agricultural operations, any more than in the trouble of writing down what he knows. But it takes "a good many kinds of people to make a world;" and these gentlemen farmers, full of hospitality and intelligence, yet afflicted with the *pen-phobia*, form a class, we are sorry to say, somewhat too numerous—for, where much is given, much ought to be expected. Then came Dr. Hoffman's importation of Ayrshires, some years since, but at a much later period. These have passed—some of them, at least—together with some sent out by McHenry Boyd, Esq., from England, into the hands of Mr. McHenry, in Hartford Co., Maryland; who, on trial, entertains the highest opinion of their value for the dairy—and if we may form an opinion of his judgment, in such cases, by such specimens as we have seen of his dairy products, there need be no better.

We are under the impression—but of that we shall soon be better informed—that, some years past—not a few—there was an importation of Ayrshires into Massachusetts that did not tend to establish it as a popular breed; for what reasons we are not now exactly informed. On the other hand, the very fact that such an Association of well-informed, disinterested, judicious, inquiring, and thinking men as the Trustees of the Massachusetts Agricultural Society—for we are disposed to lay great stress on the importance of *grounding action on thought*)—the very fact, we say, of such men, having the means to be employed and the license where and what to choose, sending for Ayrshires and North Devons, would of itself be, with us, *prima facie* evidence of the eligibility of the choice, for their purposes. On this point we find the following reasons in what we deem an authentic exposition of their views:

"The breeds of cattle which the Trustees believed, under all the circumstances, to be best adapted to this country, best calculated to promote the object they had in view, and to subserve the wishes and wants of the farmer, were the Ayrshire and North Devon.

The Ayrshire cows have been, for nearly or quite a century, distinguished as deep milkers, and at the same time are known to be a hardy, mild-tempered and docile race—easily kept, with a disposition to fatten when not in milk, and having a capacity of convert-

ing their food to milk beyond that possessed by any other breed of cows in Great Britain.

The venerable Aiton, who may be justly styled the pioneer and champion of improved husbandry in Scotland, and particularly of that branch which relates to dairy stock, says: "The Ayrshires are the most improved breed of cattle to be found in the island, not only for the dairy, in which they have no parallel under similar circumstances, but also in feeding for the shambles. They are, in fact, a breed of cows that have, by judicious

selection, cross coupling, feeding and treatment, for a long series of years, been brought to a state of perfection which fits them, above all others yet known, to answer in almost every diversity of situation where grain and grass can be raised to feed them, for the purposes of the dairy, or for fattening them for beef.'

In the dairy establishment of Mr. Harley, at Glasgow, consisting of 150 cows, they were principally of the Ayrshire breed, to which he gave a decided preference over any other breed. The average quantity of milk given by the cows in his establishment, for the year, was eleven quarts per day from each."

As to their "*disposition to fatten when not in milk*," that, we apprehend, is in proportion to the predominance of the Short-Horn blood; and whether the accession of that blood is not made at the expense of the milking property, will depend upon whether it is derived from a milking or a beef family of that race. Some of the Ayrshires we have seen—Mr. Davie's, and a cow we saw at Saratoga—wore the appearance of miniature Short-Horns; and such is the character of the portraits of Ayrshire cows as we sometimes see them represented. For ourselves, if called on to make a selection, we should lean to the *Alderney* side of the house, as it is exhibited in the Plate we give, and in the Ayrshires imported by Dr. Hoffman. We have not seen the Massachusetts importation, but that is no reason why we never should.

Looking for the origin of this race, we have not in reach any more recent or authentic account than we find in Low's splendid work on the Domestic Animals of Europe—of which the only English copy we have seen is in possession of Lewis Morris, Esq., near Fordham, Westchester County. Referring now to the French translation before us, we find it there stated that authentic documents are wanting to designate the progressive steps which have been followed, with the milch cattle of Ayrshire, to bring them to their present conformation. Culley, who wrote his work on Cattle before 1790, makes no particular mention of Ayrshires. Aiton, who in 1825 published a treatise on the Dairy Husbandry of Ayrshire, describes their cattle, according to his own observations, as being a sorry, ill-formed race, without any superiority over those which then existed in some of the mountainous districts. The cattle were then, as he informs us, generally of black color, with white marks on the face, back and flanks. Few of the cows gave more than from one-half to two gallons of milk a day, after calving; and weighed, when fatted, 20 stones—meaning, we presume, 14 pounds to the stone, or 280 net. But, says Mr. Low, according to the French translator, since that epoch the blood of the primitive Ayrshire has been mixed with other races. It is, says he, established on competent authority that, in the middle of the last century, Count Marchmont introduced, on his estates in Berwickshire, a bull and many cows of the Teeswater, then known under the name of the Holland or Holstein breed, which were supplied to him by the Bishop of Durham. Divers other proprietors introduced foreign breeds of cattle, probably of the same race, on their estates. One cannot say with certainty what was the influence exercised by these accidental importations (we are re-translating Mr. Low) on the primitive race of Ayrshires. Tradition even ascribes to an anterior importation of cows of the *Alderney* race, in the parish of Durham, the first remarkable ameliorations which occurred with the cows of Ayrshire and in the produce of their milk.

This opinion, says Low, in which we entirely agree, is justified by the resemblance which exists between the *Alderney* race and the modern Ayrshires; and which is so obvious that, even without the tradition, one would be led to believe that the blood of the two races had been mingled. One remarks, in fact, in the two races, the same kind of horns and the same color of the skin. In a word, the general conformation presents such a striking analogy that we might often

be led to confound the Jersey with the Ayrshire cow. Thus, in spite of the absence of authentic documents to this effect, one may affirm that the *milking* race of Ayrshires owes the characters which distinguish it from the ancient race to its cross with the English races derived from the Continent, and with the milking race of Alderney.

Mr. Low proceeds to describe the Ayrshire, as illustrated in the portrait prepared for this number. The modern Ayrshire, he says, may occupy the fifth or sixth class, as respects height, among the races of Great Britain. The horns are small and turned in at the extremity, as those of the Alderney. Their shoulders are light, while they are large and deep across the loins—a form which is most generally met with in deep milkers. The skin is moderately soft to the touch, and of a yellow orange color, which is also seen on the eyelids and udder.—The predominant color is a reddish brown, mixed more or less with white. The muzzle is ordinarily black, but often flesh-colored. The limbs are lank, the neck small, and the head exempt from coarseness. The muscles of the internal parts of the thighs are thin, and the haunch droops at the tail—a characteristic equally of the Alderney, and which, though it destroys the symmetry of the animal, is not considered as incompatible with an aptitude to an abundant secretion of milk. The teats are of middle size and sufficiently firm. The cows are very tame and docile, and sufficiently hardy to do well on the most ordinary food.—They give a great quantity of milk, in proportion to their size and the food they consume, and their milk is of excellent quality. When in good heart on grass pasture, they give 800 to 900 gallons in the year; while as to the younger and less productive, 600 gallons may be considered a good medium produce for the whole herd of cows in the low country, and sometimes a less average for the entire herd of cows in the mountains.

Few of this race of cattle are raised for beef, and the male calves are sold to the butcher, either at the cow's foot, or after having fed for a longer or shorter time on milk. When the cows go dry, they fatten promptly; but the great merit of the race is in its fitness for the uses of the dairy. The attention of breeders being exclusively turned to this point, the animals have acquired, in an eminent degree, qualities of that kind; and their exterior qualities present all the characters that indicate this particular disposition, more than those which denote an aptitude to early maturity and to fat. Furthermore, those, says Low, who suppose that the Ayrshire race unite the properties of milch with those of beef cattle, entirely confound the distinctive characters of the two. The Ayrshire occupies the first rank among dairy cattle, but they deserve an inferior place among cattle designed for the butcher.

The Ayrshire race has been much spread over the counties around its original region of country, where good milkers belong. It now forms the predominant herds in Renfrew, Dunbarton, Stirling and Lanark, and has extended in the counties of Dumfries, Wighton and Kircudbright. The Ayrshire has been carried into England, but has not there preserved the reputation it enjoys in its original pastures. All cows succeed best in the localities where they have been raised; and those of Ayrshire appear to have this particularity—that they have a great tendency to fat, and to undergo a corresponding diminution in the production of milk, when transported where the herbage is richer than that to which they have been accustomed. They have been tried in the great milk establishments in London, but have been there always abandoned for Yorkshires and larger races.

Some raised in the county of Ayr have been crossed with the Short-Horn breed. This process is useful, perhaps, in some particular cases, because the first cross is always larger than the maternal stock in size, conformation and disposition to fatten, and scarcely inferior in the production of milk; but it cannot be of general advantage thus to replace or supersede a race, the characters of which are now so uniform and so well appropriated to the Agriculture of the country. The true method of amelioration consists in preserving the race in the purity it possesses, and by adopting some mode of treatment and of nourishing which may augment its valuable qualities and improve its conformation. Already, in the course of our age, the weight of the Ayrshire has almost doubled, and its aptitude to give milk has been much augmented; with the future progress of Agriculture its melioration cannot fail to be progressive.

Such is the history, such are the qualities, of the Ayrshires, as given by very recent and very high authority. We find we must postpone, for want of room, what we had proposed to add, as to their milking properties and the cost of them, on the authority of Mr. Colt of Paterson, Mr. Colman, Mr. Norton, Mr. Phinney, and last, if not least, on our own observation. Throwing aside all speculation, the facts, when collected, may present a statement interesting to all who are curious (and what farmer of true spirit is not?) to know what is said of all the different races, by men enjoying the best opportunities to describe and estimate them.

It is not to be doubted that, by nice discrimination in choice of individuals, and great and skillful perseverance, a breed excelling, for any given purpose, might, after a long series of years, be formed out of our native stock; but, with those who would contend that there is nothing in breeds, we can only stop now to ask, how he would like to take his chance to get out of a Conestoga wagon mare, a hunter that would take him over a five-barred gate, and tail the pack in pursuit of an "old red"?

As one of the first questions in these cases is, naturally, as to the *cost* of things recommended, we add a short extract from a letter just received from R. L. Colt, Esq., to the Editor of The Farmers' Library:

"My Ayrshire bull cost me £40 sterling in Ayr—making, to get him here, \$300. The cow cost £19, and stood me in \$200. Devon cows cannot be imported short of \$200 each. A bull will come at \$300; Alderneys the same. My friend N. Biddle imported an Alderney bull and four cows that cost him \$1,500. My Alderneys are of his stock. I would not sell an Alderney cow short of \$150. I sold two Devon cows this fall at \$100 each, and a heifer at \$75."

ROAD MANURE.—Turnpikes and roads in general are formed by running a plow along their sides, and after the earth is loosened by several furrows, it is scraped into the middle of the highway by oxen or horse-power, having a ditch or gutter at each side, two or three feet wide, and from one to two feet deep. These ditches are often completely filled up with fine rich mould (completely black), which is highly surcharged with the very essence of the road and of the adjacent grounds, having been washed thither by melting snows and teeming showers of rain. If the gutters are level, or only of a gentle descent, they will require no attention in order to manure; but if the water flows through them with a rapid current, it will be necessary to make small dams across them every few rods to prevent the escape of the sediment that drags along their bottoms.

There is an objection, however, for the farmer to interfere in this manner with any public highway, as it would render him liable to prosecution and the payment of all damages which might accrue. If he could obtain permission, from proper authority, to deposit an equal quantity of good gravel for every load of manure he might take away, the difficulty would be removed, and he could enrich his land at his own expense.

J. S.

CHARCOAL—LIME—MARSH-MUD COMPOST—SALT AND STABLE MANURE.

To seduce you, gentle reader, into the perusal of what follows, we have eschewed the stereotyped heading, "POTATO ROT." We have, as you will bear witness, carefully avoided adding to the *quantum suf.* on that subject—for, in truth, what could we hope to say new, or to discover, either preventive or curative, on a topic which had baffled the investigations of such men as *Kane*, and *Playfair*, and *Lindley*, and *Liebig*? and, yet more, which had survived the original and erudite essays from the Patent-Office, comprising more than 100 pages of its famous Report?

We, however, conclude to give the following observations by Dr. Moorman, the Consulting Physician at that attractive and delightful summer resort for the recovery and preservation of good health, the WHITE SULPHUR SPRINGS, in GREENBRIAR.

We can speak for the Doctor's zeal as an amateur agriculturist, and, if it had been possible to accept his hospitable invitation to visit "FANCY HILL," could have been enabled the better to judge how far his success as a practical farmer corresponds with his well-known skill as a practicing physician.

JOHN S. SKINNER, Esq.

FANCY HILL, Virginia, Nov. 2, 1847.

Dear Sir: Believing that any information tending to throw light on the *Potato Rot*, or in any way to mitigate its ravages, will be interesting to you, and may be beneficial to the community, I take the liberty of stating a fact that has just come under my observation, and which, so far as I know, has not been heretofore noticed.

In the spring of the present year, I broke up and planted in potatoes an acre lot, which, for several years, had been covered with a heavy grass sod. Near the center of this lot, a coal-pit had been burnt about twenty years ago, and at this time the ground where it stood is quite blackened with the coal-dust and small pieces of coal. We are just engaged in digging the potatoes in this lot, and find a very large proportion, perhaps two-thirds, either partially or entirely rotten, *except those that grew on the site of the old coal-pit*; and there they are uniformly sound and healthy, and completely free from every indication of disease.

The ashes deposited in burning the pit must long since have lost their strength, and I am, therefore, left to conclude that the preservation of the potatoes on the site of the pit was entirely owing to the charcoal which was freely interspersed with the earth.

We ought not to be hasty in forming a practical conclusion in Agriculture from a single experiment, however satisfactory such experiment may have been; but I respectfully suggest if the fact I have observed may not be so far worthy the attention of the potato-growers in districts where the rot prevails, as to cause them to have coal-dust or pulverized coal put in the hills or rows with the potato sets when they plant in the spring? And, farther, if it would not be well to bury such potatoes as are threatened with the rot in charcoal, with the view of preserving them for the use of stock during the winter and spring?

Very respectfully, Sir, your obedient servant,

JOHN J. MOORMAN.

P. S.—Since writing the above, I have learned from my neighbor, Mr. Moffitt, who, like myself, has an old coal-pit in his potato patch, that he has found every potato that grew among the coal perfectly sound and healthy, while those in the balance of the patch were so rotten and worthless that he discontinued digging them after taking up a few bushels. J. J. M.

Well aware that Mr. Colt, of Paterson, had made various experiments with different substances, the preceding letter was submitted to him, and has been returned with the following remarks:

My Dear Sir: I return you Mr. Moorman's letter. In 1846 I tried charcoal-dust with potatoes, and also anthracite ashes, and thought with success. This year I tried several plans with my potato crop—some with charcoal, lime, and marsh-mud compost—some with lime—some with salt—some on virgin land without any manure, and some with stable manure. All had the rot, more or less; those planted early escaped best. Mercers were the most affected—Pink-Eyes some—Black-Skins not much, and Scotch Grays but little. Even potatoes raised from seed did not escape. I had some chocolate-colored Kidneys not affected at all. The thick-skin potato seems to escape the rot best; and those early planted were

much less diseased than the late planted. Only those last planted rotted in the ground.—Some of the early showed signs of decay in three or four days after digging them. I put some, as soon as dug, into charcoal bins, but it did not save them; and I have come to the conclusion that the disease is atmospheric, and, like the cholera, will work its course, and after a year or two we shall be able to raise good crops again. Next year I shall plant fewer potatoes, and more beets, carrots and parsnips.

From all I can learn, our potato crop in New-Jersey will not be a half-crop, and I think it will be safe for you to estimate the crop throughout the country at that rate; and it is said that the rot has extended to sweet potatoes. I mean to go largely into Jerusalem artichokes for hogs the next year.

THE "SCHOOL OF APPLIED CHEMISTRY" AT NEW-HAVEN.

ITS CONNECTION WITH PRACTICAL AGRICULTURE.

"Providence would only initiate mankind into the useful knowledge of Earth's treasures, leaving the rest to employ our industry, that we might not live like loiterers."

It is with no ordinary pleasure that we announce the opening of this School, and hail its establishment as another and a decisive step in the forward march of public sentiment, demanding, more and more emphatically, *express education* for Agriculture, as for other arts and pursuits.

This School is attached to the Department of Philosophy and the Arts in Yale College, with B. SILLIMAN, Jr., as Professor of Chemistry and the kindred sciences applied to the arts; while J. P. NORTON is the Professor of Agricultural Chemistry.

The instruction in the Professorship of Agricultural Chemistry, about which we feel most immediate concern,

"Is intended to unite, as much as possible, practical views with theory; to give the untaught farmer an opportunity to become acquainted with so much of Science as shall enable him to reason upon his daily pursuits, and to understand the great principles upon which good cultivation must depend. A course of Lectures will be delivered in the winter of each year, commencing in January and continuing about two months, there being four Lectures in each week. The subjects of the course will be: the composition and nature of the soil, the plant, and the animal—theories of rotation of crops, and of feeding—modes of draining—the different kinds of manures, their value and how beneficial—the improvement of waste lands, &c. &c.

"In connection with the Lectures will be a short course of Elementary Chemistry, for such as wish to study somewhat more of Chemistry than is given in the course, and to qualify themselves for making ordinary testings and qualitative examinations of soils, manures, &c."

The introduction of this new branch of instruction is an experiment which appeared to be called for by the juster views which begin to prevail as to the true nature and dignity of this pursuit. It remains now to see whether farmers will give due encouragement to an enterprise which looks directly to the elevation and improvement of their character and position in the circle of national employments, and we rejoice to learn that already the signs are favorable.

We feel authorized to say that it will be the aim of Professor Norton to make his Lectures as practical as possible, to the end that farmers shall be divested of the too prevalent idea that to understand and profit by them, they must devote themselves to the regular study of Chemistry. On the contrary, the design, as we understand it, will be to give them a plain, comprehensive course—not to puzzle them with hard words or to confuse them with theories requiring a scientific education to understand them. In a word, the purpose is to explain the great principles on which all proper cultivation depends, in such a manner that

they may be perceived and comprehended by all men of sound education and understanding.

We regarded it, at the time, as a most favorable omen that Mr. Norton should have self-imposed the labor, time and expense of another visit to Europe, for the benefit of more ample experience in their laboratories, always in actual exercise, and conducted under the guidance of men renowned alike for their honorable ambition and acquirements, wherever Agriculture has a friend or Science a votary.

Notice has been given that those who desire more exact information may apply directly to the Professors above named. We have only to repeat our felicitations that American Husbandry seems to be at last about to receive that aid which Science has been affording so long and so effectually to less important branches of art and industry, and to tender the pages and facilities of this journal, as far as it can be made to bring about a "consummation so devoutly to be wished."

THE WHEATLAND INSTITUTE.

It is at once a matter of gratification and duty to call attention to the following announcement of an Institution in which we feel confident the course of instruction will much more nearly approach what is needed for agriculturists than those which are pursued in ninety-nine cases out of a hundred to prepare the sons of farmers and planters for the occupations and duties that await them.

Besides being a graduate and Assistant Professor of Mathematics, of highly respectable standing, at West Point, Mr. TURNER is known to us as a gentleman of estimable character, conscientious views, and honorable ambition to be useful, having a lofty sense of the responsibility which attaches to all who undertake the great trust of *forming the mind and character of those who may be committed to their charge*. The locality is healthy, the position accessible, and the guaranties of kindness, attention and discipline, such as parents may naturally desire and ought to covet, and may, we are quite sure, fully confide in for their sons.

We say nothing of the military part of the institution, being thoroughly persuaded that for the landed interest it were better, isolated and secure as we are, not to engage in wars, or to waste time and substance in preparing for them. What men have incurred the expense and imbibed the spirit to prepare for, they are very apt to carry out. With the military science for the direction of military force, when invasion comes we are persuaded the Institution at West Point is adequate, and that this Republic has no occasion for standing armies, which always beget wars, pension lists, and privileged classes who fatten on the honest labor of the country and consume the wealth that ought to be reemployed in its own reproduction—in multiplying the facilities of industrial exchanges and augmenting the population and happiness of the country. In fact, we are thoroughly prepared to believe in the language of a work that will, if we are not greatly mistaken, soon make a profound sensation among thinking men, that

"The PAST says to the Sovereign of the PRESENT: 'If you would reign over a great nation, avoid war, and labor to promote the growth of wealth.'

"To the Representatives of the land: 'If you would have your properties increase in value, avoid war, and labor to promote the increase of population and wealth.'

"To the People it says: 'If you would acquire the power to act and think for yourselves,

to determine how you will employ your faculties of body and mind, and what, for yourselves, shall be the disposition of the proceeds: labor to prevent war and waste.' "

We speak here for the landed interest of the country, to which we are bound, heart and hand, without alluding to or caring about who happens to be in power or who out. It is to their immediate Representatives that the *farmers* should look to save them from wars, pensions and taxes.

But to return to the Wheatland School: if it only succeed according to our wishes and persuasion of its excellence, it will fully realize the highest hopes and expectations of its founder.

To J. S. SKINNER, Esq.

WHEATLAND, Jefferson Co., Va., Oct. 4, 1847.

My Dear Sir: It is no longer a question whether the agriculturist should be a man of science and of education. The idea that improvement is unattainable in this pursuit alone, that ignorance and blind adherence to established practices and old implements are the safest guides to the practical tiller of the soil, may now certainly be said to be exploded.

It has become a desideratum that is acknowledged and felt (as witness the munificent action of the public-spirited men of New-England) to introduce into our colleges and schools professorships intended for the instruction in his trade and the enlightenment of the mechanic, the farmer, the man of labor.

Have we no spirit of the same sort farther south? Are we content still to neglect our trades—to associate labor and ignorance, and thus to assign to those pursuits which are in truth worthy of the highest respect, an inferior place? I hope that a better spirit and juster views prevail among us; and I therefore propose, with the countenance of my fellow agriculturists, to establish upon my farm in Jefferson County, Virginia, an institution peculiar, so far as I know, in character, and of which the following shall be the features, viz: the West-Point course of instruction in Mathematics, and in the Natural Sciences; the Dead and Modern Languages, for such as may desire to learn them; the drill of the soldier as taught at West Point; and, for such as desire it, a course upon Agriculture, of which the object will be to hasten and extend the introduction of improved implements and varied crops, to which purpose a sufficient portion of my farm will be allotted. Being a graduate of West Point, and having served several years in the Army, (first, for a period, as an Assistant Professor of Mathematics at West Point,) and for several years more recently and to the present time, as a practical and laboring farmer, I promise, if encouraged in this enterprise, to put into requisition whatever of experience or knowledge I may have acquired in these several favorable positions, and thus faithfully to endeavor to return, in some small degree, the peculiar debt which all graduates of the Military Academy owe to the country. Will you allow me to hope for your aid in the promotion of this object?

The school is already commenced and ready for the reception of students.

DUTCHESS AGRICULTURAL INSTITUTE.

We sincerely wish the same success to Mr. WILKINSON'S "*Dutchess Agricultural Institute*," in regard to which we have the high authority of the Executive Committee of the New-York State Agricultural Society for saying, "This Institution is in successful operation, and is doing much good, and the Proprietor is about enlarging his buildings to meet the wants of the agricultural community;" and we take the opportunity to explain that a communication with drawings for a coach-house and stables was received some months since, and until recently mislaid. The drawings are in the hands of the engraver, and the whole will be published, with some comments, in an early number.—These are the last lines to be sent (15th Nov.) for the December number. A great variety of valuable matter is necessarily postponed.

NOTICE OF THE AGRICULTURAL INTEREST

BY MEN IN AUTHORITY.

WE much wish we had time and room to note what may be said of Agriculture, and especially of appropriate education for it, by the Governors in their Annual Messages, and in the Reports of Agricultural Committees in the several States, the coming season. They will serve, in some measure, as indications of the progress of public opinion on this most important of all subjects of legislation. It will be our pleasure to commend to universal respect and esteem the examples of those who manifest their patriotic sensibility on this great and universal concern, as it will be our duty to reprobate the delinquency of men charged with the care of the common weal, who can have the ignorance or the hardihood to overlook it, as many do—as though Agriculture were an insignificant interest, with which Government has nothing to do but to neglect or—to *tax it*. Peruse, reader, the honorable evidence of enlightened solicitude for the Plow on the part of Governor THORP, of Delaware. We have room only for a very brief extract—enough to show that he, at least, for one of the men in high places, has a true appreciation of what is due to the cultivation of the soil:

... "But while reviewing our own advancement as a State, in the general progress of Society, it is most useful, however mortifying it may be, to consider our deficiencies; and, therefore, my fellow-citizens will bear with me in earnestly invoking attention to the languishing condition of our Agriculture—the paramount interest of the State, and which, in the counties of Kent and Sussex, furnishes the chief employment, and constitutes almost the whole source of wealth. The early accumulation of lands into the possession of a few large proprietors left the soil to the cultivation of a dependent tenantry, who had no sufficient interest in its permanent improvement to stimulate them to its proper care and management. As a direct consequence, its productions, both in amount and quality, have fallen far below its real capabilities. The profits of agricultural labor have depreciated, and, in the decline of this interest, others also have necessarily participated.

"The equalizing processes of republican society have gradually broken up the large

landed estates of former times, and our lands have fallen, in smaller parcels, into the hands of those who themselves till the soil, and who in becoming its possessors have acquired a permanent interest in its productiveness.—Hence a decidedly forward movement has been exhibited by our farming classes within a few years past. But the sluggishness, impoverishment and decay still visible in many places, show that our Agriculture yet labors under the depressing effects of the old system of large landholding, and claim for it the serious attention of the General Assembly.—Whether any, and what, measures of relief are within the sphere of legislative action, is matter for much consideration. It may be that, by a liberal course of legislation toward our farming interest, and especially by so directing the education of the young as to inspire a love of agricultural pursuits, exciting to a careful study of the resources of the soil and of the best modes of cultivation and improvement, this great branch of Industry can be completely renovated."

SALTING MEAT.

SUGAR OR NO SUGAR—THAT IS THE QUESTION.

IN the leading article of this number we have treated the subjects of Hogs and Bacon. We there expressed doubts about the benefit of sugar, as employed by many, in the process of curing meat, and also as to the necessity of *tight* vessels to retain the brine. Leaving these questions open, we deem it of importance to present the following from packers of high character and experience, in Baltimore, a leading market for provisions of all sorts. We

owe these valuable and instructive items to the never-failing kindness of Mr. GEORGE LAW, who recently forced upon the agricultural community, by indefatigable perseverance, a knowledge of the value and use of *guano*—which we had attempted and failed to do, by the distribution of two barrels of it in Maryland, in December, 1824, with an authentic analysis of its constituent qualities, and the application of it in Peru. But it requires energy and patience like Mr. Law's to show that "some things can be done as well as other some:"

LEWIS CASSARD is in the practice of curing hams by packing them in tight casks, and covering them with a pickle made of ground alum or Liverpool salt, to which he adds saltpetre and soda in the proportion of five pounds of each to every 100 gallons of pickle, of strength sufficient to bear a potato, in which they remain for 30 days, and are perfectly cured without the use of sugar, which he considers a humbug, and of no other use than to attract flies. Shoulders and middlings he cures in the usual way, by dry-salting on shelves, or on the floor, and permitting the pickle (deteriorated by use) to escape.

ISAAC REYNOLDS & SON cure the whole hog by dry salting and packing on shelves, or on the floor, and turning every three or four days. They also prefer the use of a little sugar as a decided improvement.

From the foregoing it would seem there is no uniform practice prevalent in Baltimore; and although I have no experience in the matter, nor has my opinion been asked, yet, as in prosecuting the inquiries I must have picked up some information, (to which you are perfectly welcome,) I will venture the opinion that dry salting in bulk, on shelves or on the floor, is preferable for shoulders and middlings, and that the use of tight casks is best for hams, as not liable to so great a pressure, and best preserving their shape and beauty, the whole without the use of sugar, as entirely unnecessary. (Signed) WM. PANTLOW.

Mr. SKINNER is informed that the best mode of salting pork is this, to say: after the hog is well cooled and stiff, then cut into suitable pieces, then salt well with Liverpool ground alum, or with Liverpool blown salt, by rubbing each piece well, using about 2 oz. saltpetre to every 8 pounds of salt, and 1 oz. pearl ash—mixing, if you please, all together in a salting-box, where the rubbing process is carried on; then place carefully in a box, cask, or shelf, as the case may be; let it remain two or three days in the salt, then change the top pieces to the bottom, rubbing well again with salt only. Some parties use sugar, to say: 2 pounds to every 100 pounds of hams or shoulders in addition to the saltpetre and pearl ash. It will do no harm, if the bacon is kept in a dry place and well secured from the bug and fly. It is more difficult to keep bacon where sugar is used, and in my opinion is of very little benefit, if any, to the meat. The saltpetre and pearl ash give the proper red color, and are good enough. The pearl ash has a tendency to redden the meat and prevent the fly and bugs from operating. I sometimes use a little country red pepper, well pulverized, that has the effect to prevent the bug or flies from operating, and is healthy. (Signed) J. B. EARLY.

PRINCE GEORGE'S COUNTY (MARYLAND) AGRICULTURAL EXHIBITION.—Rare good luck enabled us once more to shake hands, on that occasion, with old and cherished friends. We had intended, if time and room had been at command, to say a few words in praise, not flattery, of the nice displays of housewifery; of their magnificent region of country; and of the character of the Cattle-Show, as far as the county generally was concerned; but—"the least said 's the soonest mended." Take away what was sent there—the tasteful handiwork of the ladies, and the contributions of some four or so gentlemen of the county, the same old contributors—and where would have remained, on that ground, any proofs of the hearty zeal and progress of a county distinguished for its wealth, and high-breeding of men and women?

The gentlemen who came on their Arab steeds, with sword and buckler, will excuse the freedom of an old soldier in the cause of the—*Plow*, if we venture the opinion that they would have been quite as usefully employed in driving their cattle and their sheep to what was got up with great trouble by a few, and designed as an exhibition of *agricultural* industry. If their animals and implements were defective, so much the greater the merit in sending them, to evince what is wanting: no childish, ridiculous pride should restrain men of sense on such occasions. But, alas! how much more attractive is a red sash,
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or a white plume, than an improved plow or a fine cow!—how much more charming for mankind the sound of the drum and fife, than the rattle of the wheat-fan, and the lowing of herds! We only wish it were as easy to pay the debts, pensions and taxes generated by wars, as it is to persuade sober agriculturists to give their time and means to military equipments and parades, who yet refuse to give a V for instruction, to their sons, of *inappreciable value* in the line of their future calling. For the rest, with the best possible wishes, we refer our friends to the reflections thrown out at pages 292, 293. We care not, and go not, for the time present, or for existing factions, any farther than they are connected with the *real and solid prosperity of the landed interest*. Truth will never offend a man of sense—nor even error, when conceived and propagated with good intent.

FAIR AT EASTON, MARYLAND.—We have heard nothing yet of the result. If not successful, the greater the reproach—for none know better than they, as to agricultural improvement, what has been done, what is wanting to be done, and how it should be done. We don't doubt, and shall rejoice to hear, that all was O. K.—that there was no hanging back, from false pride, from envy, from stinginess, or the fear of a little trouble for one day in the year.

PRICES CURRENT.

[Corrected, November 24, for the Monthly Journal of Agriculture.]

ASHES—Pots, 1st sort, '47. Φ 100 lb. — @ 6 —	Staves, White Oak, pipe, Φ M. 57 — @ 58 —
Pearls, 1st sort, '47. — @ 7 87½	Staves, White Oak, hhd. 43 — @ 44 —
BEESEWAX—American Yellow 22 @ 24	Staves, White Oak, bbl. 34 — @ 35 —
CANDLES—Mould, Tallow. Φ lb. 11½ @ 12½	Staves, Red Oak, hhd. 32 — @ 34 —
Sperm 31 @ 33	Hoops. 20 — @ 30 —
COTTON—From. Φ lb. 6½ @ 8½	Scantling, Eastern 16 25 @ 22 50
COTTON BAGGING—Kentucky 15½ @ 16	Scantling, Oak. 30 — @ 35 —
CORDAGE—American. Φ lb. 11 @ 12	Timber, Oak. Φ cubic foot 25 @ 30
DOMESTIC GOODS—Shirtings, Φ y. 5 @ 9	Timber, White Pine. 18 @ 25
Sheetings. 6 @ 15	Timber, Georgia Yellow Pine 28 @ 32
FEATHERS—American, live. 36 @ 40	Shingles Φ bunch 1 75 @ 2 25
FLAX—American 8½ @ 9	Shingles, Cedar, 3 feet, 1st quality. 26 — @ 30 —
FLOUR & MEAL—Genesee, new, bbl. 6 12½ @ 6 18½	Shingles, Cedar, 3 feet, 2d quality. 24 — @ 28 —
Oswego 6 — @ 6 06½	Shingles, Cedar, 2 feet, 1st quality. 18 — @ 22 —
Michigan 6 — @ 6 12½	Shingles, Cedar, 2 feet, 2d quality. 16 — @ 20 —
Ohio 6 — @ 6 12½	Shingles, Cypress, 2 feet. 15 — @ 18 —
Ohio, Round Hoop — @ —	Shingles, Company 35 — @ 38 —
Ohio, via New-Orleans. — @ —	MUSTARD—American — @ —
Pennsylvania. — @ —	NAILS—Wrought, 6d to 20d. Φ lb. 10 @ 14
Brandywine — @ —	Cut 4d to 40d. 4½ @ 44
Georgetown. 6 37½ @ —	PLASTER PARIS— Φ ton. — @ 2 50
Baltimore, Howard-street 6 37½ @ 6 50	PROVISIONS—Beef, Mess, Φ bbl. 8 50 @ 9 25
Richmond City Mills. — @ —	Beef, Prime. 5 50 @ 6 25
Richmond Country. — @ —	Pork, Mess, Ohio 15 — @ —
Petersburg 6 37½ @ —	Pork, Prime, Ohio. 9 75 @ 9 87½
Rye Flour 4 50 @ 4 62½	Lard, Ohio. Φ lb. 9½ @ 11
Corn Meal, Western and State. 3 12½ @ 3 25	Hams, Smoked. 12 @ 13
Corn Meal, Jersey and Brandywine 3 43½ @ 3 50	Shoulders, Pickled — @ —
GRAIN—Wheat, White. Φ bush. 1 30 @ 1 37½	Beef Hams in Pickle 10 — @ 11 —
Wheat, Red and mixed. 1 20 @ 1 30	Beef, Smoked. Φ lb. 7 @ 7½
Rye, Northern 90 @ —	Butter, Orange County Dairy 19 @ 21
Corn, Jersey and Northern yel. 75 @ —	Butter, Western Dairy 14 @ 16
Corn, Southern, yellow. 75 @ —	Butter, Grease. — @ —
Corn, Western, yellow 75 @ —	Cheese 6½ @ 7½
Oats, Northern — @ 50	SEEDS—Clover. Φ lb. 7 @ 7½
Oats, Southern — @ —	Timothy. Φ tierce 15 — @ 17 —
HAY—North River in bales, Φ 100 lb. 56 @ 60	Flax, Rough. — @ —
HEMP—American, dew-rotted. . ton 140 — @ 150 —	SOAP—New-York. Φ lb. 4 @ 7
" " water-rotted. 160 — @ 190 —	TALLOW—American Rendered 9 @ 9½
HOPS—1847 7 @ 8½	TOBACCO—Virginia. @ lb. 24 @ 7½
IRON—American Pig, No. 1. 37 50 @ 40 —	North Carolina. — @ —
" " Common. — @ 30 —	Kentucky and Missouri. 4 @ 7½
LIME—Thomaston. Φ bbl. 75 @ 80	WOOL—Am. Saxony, Fleece, Φ lb. 45 @ 50
LUMBER—Boards, N.R., Φ M. ft. clr. 35 — @ 40 —	American Full Blood Merino 38 @ 40
Boards, Eastern Pine. — @ —	American ½ and ¾ Merino. 33 @ 36
Boards, Albany Pine. Φ pce. 12 @ 21	American Native and ¼ Merino. 28 @ 30
Plank, Georgia Y. Pine. Φ M. ft. 27 50 @ —	Superfine, Pulled Country. 33 @ 35



H. B. W. Andrews del. N. York.

TOBACCO PLANT AND ITS ENEMIES.

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